



1910

Jan 20

Thursday
Movements

at Fern Oaks 1

Jan. 20:

Left Washington Thursday (Jan 18)
by midnight train for New York
to attend meeting of board of
directors, A. A. P. S. D.

Mrs. Garrison and Gertrude left
Washington by afternoon train for
New York, think they went to

Mrs. Ripley's. Mrs. Garrison
went to Mrs. Ripley's and
Gertrude to Mrs. Pillsbury's.

Mr. Fairchild also left Wash-
ington by afternoon train Jan
18th and.

Jan 18.

Jan 14.

I reached N. Y. Friday morning
Jan 14, and went to Hotel Lorraine,
where I had breakfast.

Found my way to 904 Lexington
Ave. by ten o'clock we had quite
a full meeting of the board of
directors, only one absentee.

Present, - Mrs. Johnson of Indiana.

Mrs. McCracken of Chicago.

Dr. Crocker of Phila.

Mrs. Williams of Hartford.

Wesley of New York of New York.

Mrs. Fuller of Boston.

1900.

Jan 20.

Thursday,
morements

Miss Gale of Northampton.

Mr Hurd of Providence R. I.

Mr Grover of Rome N. Y.

Mr Fairchild of Wash. D. C.

Mr Goodwin of ~~Morgantown~~ N. C.~~And~~ A. G. B. Total thirteen
directors, the only absentee being
Mr Blackner of Austin Tex.
~~There were~~

There were also present by
invitation, Mr Harris Taylor,
Superintendent of the ^{Union} N. Y. for the
improved instruction of deaf mutes
when the meeting occurred,
and his wife, formerly Miss
Butler, of the Penn School.
also Mrs Mills of Chefoo China,
and Mr Borth of Wash. D. C.

The board meeting lasted from
10, am to 11, P. M. With hardly any
intermission, we lunched at the
School, and the board and
visitors adjourned for dinner to
the Hotel Coraine, where Mrs
Grover joined us, and helped
me, to entertain the Company at
a banquet. A. G. B.
(taken down by (C. P. S.))

1910

Jan 20

Sunday

at Twin Oaks 3

Movements of A. G. B. continued. Taken down by C. R. C.

X Mrs. Grosvenor and Mr. Fairchild stayed with me at Hotel Soraine (Jan 14). The principal object of the meeting of the Board of the A. G. B. F. S. D. was to consider and discuss the new policies recommended by Mr. Fairchild and myself in our letter to Dr. Crocker dated January 10, copies of which had been sent to the members of the Board in advance of the meeting.

I had prepared a series of tentative resolutions designed to carry these policies into effect, and these were referred to a committee to be put in shape for presentation. The resolutions, as finally prepared by the committee were adopted at the banquet table at the Hotel Soraine.

Mr. Grosvenor, and Dr. Mason, of Washington, D. C., were elected members of the Association, with others early in the day. Then Mr. Grosvenor was elected to the Board in place of ^{the late} Mrs. Hubbard, deceased. My resignation as an ^{active} member of the Board was accepted, and Dr. Mason of Washington elected to the Board in my place. Then an executive committee was appointed consisting of ~~the~~ President Crocker, Vice-President Gale, and Messrs. Fairchild, Grosvenor, and Mason, of Washington, thus constituting the three Washington members a quorum of the executive committee.

Dr. Westervelt, Secretary of the Board to be ex officio Secretary of the executive committee, though not a member of the committee.

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Thursday

at Juni Osh.

It was decided to add a popular department to the Association Review, and the executive committee was given full power to employ a Managing Editor for the Review and carry out the new policy.

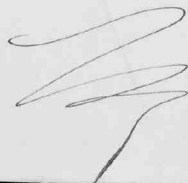
Mr. Booth was elected General Secretary of the Association, and Superintendent of the Votta Bureau, and was also appointed Associate Editor ^{of the Review} in charge of technical matter.

Mr. Eichelberger of Washington was appointed Treasurer of the Association. The executive committee was requested to audit the accounts of the Association as they were incurred, at least once a month and were empowered to select a business man of Washington to act as Auditor for the Association to make an annual audit of the accounts.

The Board passed a resolution to appoint an Advisory Council for the Board, of which the Founder of the Association (A. L. B.) should be chairman. The following persons were then elected members of the Advisory Council: Alexander Graham Bell, Miss Harriet B. Rogers, Hon. Robert C. Spencer, Mr. Wesselius of Michigan, Miss Hamilton of Rochester, Miss Garrett of Philadelphia (Mr. Wainwright of Boston) (not sure of him), Mr. St. John Ackers of England, and Miss Susanna Hull of England. I think there were some others, but don't recall their names. The meeting adjourned at 11 P. M.

Jan. 14.

A. L. B.



Jan. 14

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Thursday

at Tim Cahoon

Jan 20:- A. G. B.'s movements continued. Taken down by C. R. C.

Jan 15.

X A. G. B., Mrs. Gilbert H. Grosvenor, and Mr. David Fairchild, at Hotel Soraine, New York, ^{Saturday} Jan 15.

A. G. B. interviewed Jan 15 (by reporter from N. Y. Sun and another N. Y. paper. Mr. Jones, Editor of "Aeronautics," Mr. Wishard of N. Y., Mr. Chanute, and Mr. Ludlow, called on A. G. B., also Mr. and Mrs. Stuyvesant Tillot.

Through Mr. Jones and Mr. Ludlow I was given the opportunity of looking over the briefs in the law-suit of the Wright Brothers versus Herring and Curtis. The papers were left with me over Sunday (Jan 16).

Jan 16.

X On Sunday Jan 16 Miss Lena McCurdy called on Mrs. Grosvenor at the Hotel Soraine. I was interviewed by reporter from N. Y. Sun; also received a visit from Mr. Jones, Mr. Ludlow and Mr. Spradge, President of the N. Y. Aeronautical Society. Mr. Jones, Mr. Ludlow, and Dr. Chanute dined with me at the hotel. Mrs. Grosvenor took dinner with either Mrs. Repley, or Mrs. Tillot. Mr. David Fairchild left with his brother, who had stayed all night at the hotel. He left early in the day for his brother's place expecting to return to Washington by the afternoon train. I returned the briefs in the Herring-Curtis case to Mr. Ludlow, who acts as counsel for the Spenceman Paulham in a suit brought by the Wright Brothers, which will shortly be heard. Mr. Ludlow wanted me to make an affidavit to be used in the Paulham case, and had actually prepared an affidavit for my signature. I declined however to be brought into the case. Mr. Ludlow was also anxious

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at Sun Oaks

to have an affidavit from Mr. Douglas McCurdy and from Mr. H. W. Baldwin. I stated that I would advise them against it. He would not appear I said, unless the interests of the Aerial Experiment Associates were attacked.

Jan 17.

On Monday (Jan 17) Mrs. Gorman and I had breakfast about 1 P.M. Went to the Hippodrome for matinee performance at 2 P.M. Took dinner with Mr. and Mrs. Elliot, and after dinner went to the theatre and saw Stokes Robinson in the Second Story Back Room, or some such name.

Jan 18.

On Tuesday (Jan 18) afternoon I saw Mrs. Gorman off by an afternoon train for Amherst, Mass. Had dinner at Hotel Soraine, read a novel, "Trust in King at Kraustark" and left for Washington by the midnight train.

Jan 19

On Wednesday Arrived Washington Wednesday morning (Jan 19). Attended meeting of Board of Managers of National Geographic Society in the afternoon. Mr. Gannett was elected President of the National Geographic Society in place of Mr. Willie L. Moore, (resigned) and Mr. Hittmeyer was elected Vice-President in place of Mr. Gannett who has become President. There was a very full meeting of the Board, the largest I have ever attended. I think there were 17 or 18 present, a photograph was taken of the meeting for the evening Star. In the evening had a large gathering at my house, 1331 Connecticut Avenue, regular Wednesday evening meeting. A. G. B.

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Thursday

at Arm. Club

Wednesday evening meeting January 19, 1910.

Present: Dr. David T. Day, Prof. Wilcox of Cornell University, Mr. Harry Chase, Mr. E. W. Parker, Prof. Clarke, Mrs. Helen Darton, Mr. Richard Tyler, Prof. Raymond, Mr. Charles Marlatt, Dr. Charles Wood, Mr. Charles D. Walcott, Mr. William E. Curtis, Mr. Welcome, Mr. Frank Carpenter, Dr. Fremont Smith, Mr. Saunders, Prof. Gore, Mr. David Handchild, Mr. Gilbert H. Grenen, Dr. A. C. Bell, Mr. Safford, Prof. Bauer, Mr. Sanborn, and Mr. Charles A. Cox. There were some others whose names we have forgotten as I have reason to believe that about 31 persons were present.

Prof. Gore, chairman of the committee appointed by the National Geographic Society to report upon the question whether anyone had reached the North Pole before Peary, stated that the committee had just received a letter from the Rector of the University of Copenhagen informing the committee that the University had received the original note-book of Dr. Cook, but that it contained absolutely no proof that he had reached the pole. It contained no observations whatever. He also stated that it was his belief that Dr. Cook had intended to use the calculations of Capt. Loose, but that he had not done so, so that no observations at all had been presented.

The University was not prepared to denounce Dr. Cook as a fraud, so that the verdict of the University is simply "not proven".

Prof. Gore also stated that his committee were engaged in examining into the truth of the reported discovery of the remains of Andree's balloon, but they were unable at the present time to come to any conclusion upon the matter. Should there turn out to be any truth in the report, Prof. Gore said that the Swedish Minister here would advise his Government to send an expedition in search of the remains of the Andree expedition. Prof. Gore was in communication with the representative of the

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Thursday

Danish government at Montreal who reported that he had no further information than newspaper accounts, but that he would notify Prof. Gae of any further developments. Prof. Gae was inclined to believe that there was some basis for the newspaper stories and thought that we might expect further developments soon.

Mr. William E. Curtis gave an amusing account of his visit to the bacteriological laboratories established in England and in Kartoum in the Sudan. ^{celebrated by Mr. Welcome} He spoke of bottled up diseases and of a horse that had been inoculated with all the different tropical diseases at the "Welcome Laboratory" at Hearn Hill, England. He then introduced Mr. Welcome himself.

Dr. Bell stated that Mr. Welcome was always welcome wherever he went, and asked him to give some account of his work.

Mr. Welcome commenced by saying that we should not suppose that the horse referred to by Mr. Curtis had been inoculated with different diseases. There were other horses there that Mr. Curtis had not seen; and that each horse was inoculated with a different disease. He spoke of the extension of the sleeping sickness from the Congo region into other parts of Africa by caravans, and the propagation of the disease through the agency of a species of tsetse fly. He also spoke of other tropical diseases disseminated by biting insects and by species of mosquitos. One of the results of the Kartoum Laboratory had been the practical extermination of malaria from in Kartoum. All the recent cases were imported. The tropical malaria had been indigenous at Kartoum for generations but had now disappeared as a result of the efforts to conquer the mosquitos that spread the disease.

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Thursday

at Tulsa

Kerosene oil had been freely used upon the breeding places of the mosquito and malarial fever patients were carefully protected from mosquitoes. This process had resulted in a lessening of mosquitoes in Kartoum and the extinction of malarial fever as a local disease. ~~He also~~ Mr. Williams also gave an account of the floating

Mr. Welcome also gave an account of the floating laboratories he had established on the White Nile and Blue Nile. He answered numerous questions put to him by persons present.

present.
 Prof. Marlatt, entomologist, of the Department of Agriculture
 was present concerning the ^{biting} insects and mosquitoes that
 propagated tropical diseases. He stated that entomology was
 so large a subject that specialists devoted their attention
 to groups of insects. His own speciality related to those
 that caused disease in plants and that Dr. L. O.
 Howard, Chief Entomologist of the Department of Agriculture
 who was not present, was the specialist who had given
 most attention to the insects that caused disease in animals
 and man.

Dr. Merriam then spoke of a case of the Bubonic Plague that had occurred in an isolated place in California. It could not be traced to fleas, carried by infected rats, and examination showed that the man had been hunting ground squirrels. That he had shot several, and had carried them back to his house in his overcoat pocket. The squirrels were then cooked and eaten. The man was soon afterwards taken ill, and the case turned out to be one of Bubonic Plague. This led to an examination by the Biological Survey of the United States, of which ^{Dr. Merriam} he was Chief of the ground squirrels in that part of California, with the discovery that a large proportion of the ground squirrels were affected with Bubonic Plague. Experiments had been made by his Department which

had demonstrated that flees from these infected ground squirrels could cause the appearance of Bubonic Plague in other species of ground squirrels, and in rats so that the United States was faced by a serious problem how to prevent the spread of the Bubonic Plague from California through the rest of the United States through the agency of infected ground squirrels and rats. The disease was liable at any moment to be produced in human beings by the bites of flees from infected squirrels and rats. At present the infected ground squirrels appeared to be confined to a peninsula, or promontory of land having an area of several hundred square miles, and the biological survey was now engaged in attempt to exterminate the ground squirrels in this area before the disease had had time to spread to the mainland beyond. If the Survey should fail to do this there was serious danger of the extension of the Bubonic Plague all over the United States through the agency of ground squirrels; for ground squirrels were found everywhere from California to the Gulf of Mexico, and from California Eastwards and northwards to the utmost limits of the United States and Canada. Already quite a number of isolated cases of Bubonic Plague in human beings had occurred within the affected area, and in a large proportion of cases, in fact in nearly all of them the disease had terminated fatally. On account of the virulent nature of the disease the matter was pressing and important. The efforts of the Biological Survey are being directed to the destruction

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Thursday

at the 13

of the ground squirrels at the base of the promontory or the isthmus of the peninsula. Beyond the infected area and between it and the mainland. It is proposed to "cut a swathe" across this base and exterminate all the squirrels there and then continue to push the area boundary of extermination upwards into the promontory or peninsula away from the mainland until all the ground squirrels ~~in the~~ within the infected area have been destroyed. A unique and difficult problem is thus presented.

In the course of experiments the Biological Survey has discovered a cheap success for the wholesale destruction of ground squirrels. Departing from the custom of soaking grains of corn and other cereals in a poisonous liquid containing strychnine which takes a long time to cause the poison to be absorbed by the grains, they have tried the experiment of simply dipping the grains into a mucilaginous liquid containing strychnine without attempting to have the poison absorbed by the grains. This has proved to be so destructive to ground squirrels that the Department hope to exterminate completely the ground squirrels of the infected area. The ground squirrels are provided with cheek pouches. They collect the grains and stuff them into these pouches and do not seek their holes until the pouches are full when they descend to their underground granaries and discharge the contents. It has been found however that long before the pouches are full the poison begins to take effect so that the squirrels rarely, if ever, succeed in reaching their holes with the poisoned grain.

Dr. Merriam told of an experiment that had been made upon a farm containing a few acres of land. The poisoned grain had been literally sprinkled over the surface and, after the lapse of two hours the dead bodies of no less than 273 ground squirrels had been picked up. The expense of the process would probably not exceed 2 cents per acre.

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Thursday

at Kivikah

The Biological Survey is now pushing this process across the base of the peninsula or promontory beyond the area of infection, and it appears to be so successful as to afford ground for hope that the ground squirrels in the infected area may be exterminated before the disease has had time to escape into the United States outside.

Dr. David T. Day spoke of various uses of compressed air, and introduced Mr. Saunders who is at the head of a company engaged in utilizing compressed air for various purposes.

Mr. Saunders then performed some experiments with compressed air which he thought indicated that compressed air might be used in connection with flying machines. He had a tank of compressed air to which was attached a rubber tube connected with a metallic tube of a few inches in length, which passed through a hole in the center of a wooden board, circular in shape and I should think about 10 inches in diameter. The end of the metallic tube was flush with one side of the board. When the compressed air was turned on it was found upon presenting the flat side of the board to the top of a cigar box that the lid, instead of being blown away, was apparently attracted to the board, adhering to it with great force and producing a musical tone. He had found he stated that objects of considerable weight like small tables could be lifted completely off the floor by the apparent attraction. His remarks in explanation of the phenomenon were decidedly mixed up, but he evidently had obtained an idea that I also have had that a film of compressed air blown radially from a nozzle

1960

Jan 20

Thursday

at Turin 15

against the upper side of a flat surface, or aeroplane would in effect, blow away a slice of the atmosphere above the surface excepting at that point upon which the jet directly impinged. The pressure of the atmosphere acting upon the under surface of the aeroplane would then push up the aeroplane without an equal pressure from above. He had the idea that in some such way the aeroplane could be sustained in the air, although he did not seem to me to have very clear ideas as to how this could be accomplished. ~~He~~

Mr. Saunders spoke of the soaring birds, and suggested that they were supported in this manner. He did not speak of a partial vacuum above the bird's wings, although from my own discussion of this subject I have no doubt that this is what he meant. He spoke only of the effects of compressed air and did not allude to the consequent rarefaction of a film of air above the wings.

Dr. Bell alluded briefly to the fact that he and others had devoted some attention to this subject and believed that there was something in it. He also said that the late Prof. Langley, Secretary of the Smithsonian Institution had devoted considerable attention to the subject of the soaring birds and called upon Dr. Walcott, the present Secretary of the Smithsonian Institution for a few remarks.

Dr. Walcott, on account of the lateness of the hour thought it better to say nothing. He said he knew nothing about the soaring of the birds but would be glad to make a few remarks upon another subject at some future meeting.

The meeting then adjourned into the dining room where Mr. Fairchild exhibited some lantern slides of a new plant that had been introduced into the United States by the Department of Agriculture, from which a delicious rose colored jelly could be made. Specimens of the jelly were placed upon the dining table and were sampled by all present. I heard one gentleman say that it resembled ^{guava} jelly.

1910 Jan. 21

Friday

at Lavin Oaks.

Eugenics continued

Jan 21, -

Dictated by a. g. B.

Taken down by C. McCl.

One of the principal objects of eugenics is to promote the marriages of the desirable with one another.

What social agencies can be employed to influence marriage. Here we may gain an idea by considering what social influences interfere with marriage.

The prudent man marries late in life and has a small family, the thoughtless and reckless dash into marriage at an early age and have large families.

Why does the prudent man marry late in life? It is not because he does not desire to marry at an earlier age, but because he can not consistently with the desirable quality he possesses prudence.

Prudence leads him to postpone marriage until he is in a financial condition to support a family.

1910

Jan 21

Friday

at Thonm. Cal.

here then we have clearly
revealed a means of promoting
the marriages of the desirable.
we should aim to better their
financial condition so as to permit
them to marry, with prudence,
at an earlier age than ^{they} do now.

In a word we can indirectly promote
marriage, by giving financial means.

For example - if the most desirable
positions, carrying with them good
salaries, ^{desired by} ~~were to be~~ given only to
desirable men - with married men
preferred this would be an important
means of promoting the marriages of
the desirable.

Salaries derived from appropriation of
public money - might well be used
to promote the public good. The
policy should be adopted - of giving
government positions that yield
salaries sufficient to support a
family to married men with
families to support. Such positions
in the public service might
well be made permanent for
such men, and only temporary
for Bachelors, or married men
without families.

1910

Jan 21

Friday

at Tini Ochs

Jan 21: - Yesterday evening (Jan 20) I received a visit from a High School boy Frank Carrington who came to show me a model of a flying machine he had constructed and to seek my advice as to what he should do. A.B.B.

Jan 21: - ^{One} The way to promote marriage is to afford a means of livelihood. ~~Constant~~ Salaries, sufficient for the support of a family should be given only to desirable men, and the positions should only be temporary until these men have families of at least two children to support.

Jan 21: Send telegram to Mrs. Mabel B. McCurdy to put in the Recorder the correspondence between McCurdy & Bell relating to laboratory work referred to in the Recorder Vol 11 p. 482, omitting only such portions as do not refer to laboratory work. A.B.B.

Jan 21: Important principle: - Promote the manners of the desirable with one another.

The questions then arise: 1. Who are the desirable?
2. How can we ~~promote~~ ^{cause things to many} their manners; How can we promote their manners with one another.

1. ~~that~~ In ~~selecting~~ consciously to improve the inherited qualities of the race we should form a clear idea as to ~~the desirable~~ ^{the best in ourselves} qualities that are desirable to increase & intensify. In other words we must define the points of the selection, and be certain that the desirable qualities are ~~the best in ourselves~~ ^{such as could be passed down to posterity}.

Public opinion should establish ~~the best~~ as a cult - or moral principle - the idea that it is the persons with desirable characteristics ought, as a duty to their fellow beings, to marry and have children.

Pub. Op. should be sought to help young people of this kind, to embark upon married life, by placing them in positions yielding sufficient emoluments for the support of a family - that is for the support of at least four persons - a husband, wife, and 2 children.

~~that~~ The number of births must equal the number of deaths in the population else we cannot sustain itself.

1910

June 21

Friday

at Lavin Oaks.

19

Salaries that are sufficient for the support of a family should be made to support a family.

Good. Salaries
A salary sufficient for the support of a husband, wife, and 2 children — should be made to support 2 adults and 2 children. If the recipient is a bachelor he should be called upon to support some desirable female who ^{would otherwise be} a public charge, and two orphans who would otherwise be supported at public expense. ~~He~~ Should he marry that portion of his salary which is deducted for the support of a public charge, would then go to him directly, as he has a wife. If he has ^{one} living child then he would only be obliged to support a single orphan, and if he has a wife & two living children, the whole salary should then be paid to him without deduction. A widower ~~with~~ should support a widow who is a public charge, and if he has no children, should support fatherless children instead. ~~The person supported~~ The dependents, if not his own wife & children, should belong to the desirable class.

The female, or widowed, dependent should be old ~~and~~ past the child-bearing age — so that the assistance given should not act to prevent their marriage.

If the good salaries were given to desirable persons, and the poor salaries to undesirable, this would ~~tend to~~ ^{tend to} promote the prod. of offspring, for the desir., and lessen the prod. of offspr. from the undesirable.

In public service — some will have no children or only one while others may have 3 or 4 or more.

Thought
With the salaries of those who have ~~two~~ less than two and add this amount to the salaries of those who have more, so that the average salary will support two.

In effect, a premium upon children.

Bachelors & widowers, should support the widows & former employees — so that on the average, every man supports one woman — & two children. An idea may be worked out of this.

Thought
Could some insurance scheme be worked out of this for the support of widows & children & insanes.

1910

June 21

Friday

at Fairchild's

F. Jones has just telephoned that the District appropriates 65 cents a day for the support of Foundlings in the Foundlings Hospital. This is the average per capita appropriation.

$$\begin{array}{r} 365 \\ 65 \\ \hline 1825 \\ 2190 \end{array}$$

This is \$237.25 per annum.

\$250 per annum would be a good figure to adopt.

\$237.25

A \$1500 clerk. Salary might be split up as follows.

For the man himself \$600

For support & his wife \$400

For support of 2 chld. \$500

\$1500

or whatever is the average per capita cost of support of an adult at public expense

So

at \$1.00 per day, \$365.00 per annum —
 at .75 " " \$273.75 per annum —
 at .50 " " \$182.50 per annum —
 at .25 " " 91.25 per annum

	Wife	\$300	Wife	250
	child	250	child	250
1500	child	250	child	250
750	child	250		
		<u>800</u>		<u>750</u>

June 21 Read Mexican report of Biologicus Sumner — Fairchild's (1898) report on Systematic Plant Latitudes, and Report No 3 on the origin & prevalence of typhoid fever in the Dist. of Col. 1909. has printed it — important investigations. finished it —

all

1910

Jan 22

Saturday

at Turin 21

Dictation by A. G. B taken down by L. R. C.

Jan 22: The death of Mrs. Hubbard has revealed the fact that she has made no provision in her will to continue financial assistance to a Mr. Herbert de Fessen Tezensac. The family knowing that Mr. Tezensac had received regular monthly contributions of about \$50.00 a month for the last 20, or 30 years, first from Mr. Hubbard, and after his death from Mrs. Hubbard; and knowing from the multitude of letters in handwriting of Mr. Tezensac found among Mrs. Hubbard's papers that this gentleman was incapable of earning a livelihood, and was entirely dependent upon the donations received from Mr. and Mrs. Hubbard, felt that Mrs. Hubbard's omission to provide for the support of Mr. Tezensac might have been accidental and not intentional.

Mr. Charles J. Bell, representing the family opened up communications with Mr. Tezensac in Italy which revealed the fact that he was still alive and entirely dependent for support on the contributions of Mr. and Mrs. Hubbard. Mr. Tezensac forwarded to Mr. C. J. Bell letters received from both Mr. and Mrs. Hubbard indicating an intention upon their part to look after the support of Mr. Tezensac for life. (at least so I understand for I have not seen the letters).

Mr. C. J. Bell not wishing to saddle upon the heirs of Mrs. Hubbard, an unknown man possessing no claims upon Mr. and Mrs. Hubbard, excepting those arising from their philanthropic and generous feelings towards an unfortunate man who had aroused their sympathies many years ago; and yet not wishing to cut off

1910

Jan 22

Saturday

at Ten Oaks

suddenly the sole means of support of a pensioner of theirs, who had received substantial assistance from them for at least twenty-five years, determined to continue financial assistance to Mr. Tezensac, on a reduced scale for the present and institute private inquiries to ascertain the financial condition of Mr. Tezensac with the object of ultimately dropping stopping further contributions should it turn out to be the case that no injustice would be done to a man for whom both Mr. and Mrs. Hubbard seemed to have felt the highest regard and consideration.

It seems that the monthly drafts were paid to Mr. Tezensac in Italy through the agency of Messrs. Munroe and Company, Bankers, Paris, so Mr. Bell asked Messrs. Munroe and Company, through to ascertain, through their agents in Italy, in a private and confidential manner the exact circumstances of the man.

Mr. Bell has received a reply from Munroe and Company, dated January 11, 1910, containing translations of two reports made to them by their Italian agent, which they mark A and B.

Copy of letter from Munroe and Company to Mr. C. J. Bell

7 Rue scribe, Paris, 11th January, 1910: Private and strictly confidential.

To Chas. J. Bell, Esq.,

% of American Security & Trust Co.,
Washington, D.C.,

Dear Sir: After writing to you on the 11th inst. we communicated with our correspondents in a North Italian city, and obtained from them a reply of which we enclose a translation marked A.

1910

Jan 22

Monday

at Turin 23

We wrote again insisting upon the existence of the individual enquired about, and enclosing one of his letters to us. We then received the report of which enclosed translation is marked

B. It seems so extraordinary that we are now asking our correspondents to put the case in the hands of a private detective agency, and we will inform you in due course of the result.

We remain dear sir,

Your obedient servants,

(Signed) Munroe & Company

(two enclosures)

Copy of Report A.

A previous report is translated as follows:-

The party you enquire about is unknown at Maccagno, and your inquiry must certainly relate to some stranger who is perhaps staying temporarily with the Marquise de Montesquion, wife of Mr. Trombetti, who is of English origin and also uses the name de Tezensac.

The Marquise Trombetti has resided at Maccagno about three years, and her financial resources are unknown. Her husband, who is a native of Verona, was formerly a Captain in the Italian Army, and is now in receipt of a pension of Lit. 2459.

December, 1909.

Copy of Report B.

Translation.

Mr. H. de M de Tezensac does not exist in the house named.

The numerous people I was careful to interrogate have alluded to a mystery which surrounds the quality and origin of the tenants of the said house. It appears that about twenty years ago there arrived in the locality a gentleman

who called himself Camillo de Tezensac, and that about 15 days afterwards he disappeared, leaving in his place a lady Camilla de Tezensac who is stated by many to be the same person in other clothes.

This..... person passed some years between Maccagno, Mayadrico, and Locarno, and contracted a marriage with Mr. Trombetti, Captain in the Italian Army who now occupies an auxiliary position.

She calls herself Marquise C. de Tezensac^{de} Montesquin, of the princely family de Montluc, and boasts of an illustrious parentage which cannot be refuted. Her manners are those of a grand lady. However her means are not known.

She appears to receive a monthly remittance from one of the principal Paris Banks, which does not exceed 200 lire, and this is the only visible source of income except receiving often, but in limited numbers, English and Flemish ladies as boarders.

It is said that she is an illegitimate daughter of the King Leopold II of the Belgians, but this circumstance as you may well understand is not proved, it is a fact though that since the death of this sovereign she has been in mourning.

It appears certain that the Marquise is in correspondence with the Royal House of Italy, and with several political personalities of this country.

I have not been able to find out anything more about her.

as regards the husband he is a good sort of

fellow destined to take only a secondary part in such a distinguished family. His life passes peacefully playing manille (a card game) in the cafes with the druggist and the village Mayor.

Mr. Herbert de Tezensac, as Mr. and Mrs. Hubbard knew him many years ago was an ~~effeminate~~ effeminate young man, of delicate and refined appearance, and always well dressed. We have here a large collection of letters from him addressed to Mr. or Mrs. Hubbard, probably about 100 of them, mostly undated, and without address. He speaks constantly of his sister, La Marquise and her husband Jackie. The hand writing has a decidedly feminine look about it, and the language resembles that of a gushing and emotional girl, rather than that of a young man. In fact there was so much about Mr. Herbert de Tezensac that resembled a woman that questions had arisen more than once regarding his sex. Many years ago Mr. Hubbard obtained a position for Mr. de Tezensac in the Perm. Telephone Company at Pittsburg, Perm. under Mr. William Ker who was then Manager of the Pittsburg Exchange.

Mr. William Ker now recalls a circumstance which he has kept to himself all these years. It seems that several of the employees of the Pittsburg Company started a rumor concerning the sex of Mr. de Tezensac and stated quite positively that he was a woman. This led Mr. Ker to consult Mr. Hubbard who suggested that the rumors should be set at rest by a certificate from a doctor as to the sex of the individual. The doctor certified that he was a man; and Mr. Ker thereupon discharged the employees who had started the rumor as they still persisted in their belief of the feminine character of the so-called man.

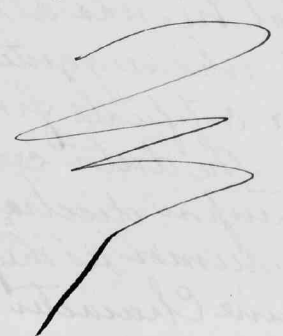
this doctor subsequently became insane.

Miss Mary Duggan, who was children's nurse in Mr. Charles Bell's family, recalls the fact that many years ago when she was in Paris with Mrs. Hubbard in care of Helen and Grace Bell, then little children, that Mr. de Tezensac visited Mrs. Hubbard at the hotel and played with the children. The extremely feminine appearance of Mr. de Tezensac aroused doubts in the mind of Mary Duggan as to the sex of the caller. He wore high heels boots, like a woman, and there were many things about his attire that suggested the woman, but the thing that most aroused her doubt was the fact that Mr. de Tezensac sat down on the floor as a woman would sit, and cut out paper dolls for the children.

Mary Duggan became so suspicious that she went to Mrs. Hubbard and expressed her belief that the man was a woman in disguise to Mrs. Hubbard's evident amusement.

The circumstances are altogether so extraordinary that the family are much excited on the question of the sex and passed history of this dependent upon the charity of Mr. and Mrs. Hubbard, and are awaiting with much curiosity the next developments from Munroe & Company.

Mrs. Pillott is to visit Italy shortly and it is proposed that she should hunt up Mr. Herbert de Tezensac and call on the Marquise Trimbette, and insist upon seeing the ~~two~~ brother and sister together. A. G. B.



1910

Jan 22 — Saturday — at Tunbridge Wells

Dictated by A.C.B. taken down by C.R.C.

Jan 22: The following is a proposed letter to Mr. Baldwin ^{Ernest McLeary} about the new Ominis drone:—

Jan 22: Please don't forget that I propose to try on the ~~new~~ Ominis drone a new form of lateral control in the form of a vertical rudder, placed, like a flag, upon a flag pole above the center of the machine, the pole forming the axis being at or about the front edge of the ring-piece. Please have this rudder and pole prepared so that we can try it after some experiments have been made with the lateral rudders you have been at work upon.

My idea is to begin with as few changes as possible in the form of the controls so as to test the effect of a ring-piece after the Ominis model with as few other complicating conditions as possible.

The front control, and the horizontal tail, however, might be made after the Ominis plan itself, but you should be careful to see that the horizontal surfaces are flat, and not curved as in the main ring-piece.

It is important also that the lateral rudders to be attached at either end of the ring-piece in the first experiments should be flat and not curved.

The balancing rudder, like a flag, ~~should also~~ to be placed ^{also} in the middle of the machine should also have flat surfaces; or if of easier construction, should be convex on both sides, so that when we turn the rudder to an equal degree on either side, the effects should be equal and opposite.

Such a rudder if placed at the rear would be a vertical rudder, and a deflection to starboard

has the part relating to the Ominis drone has been worked up into a letter & instructions to Mr. Baldwin, to be discussed with Baldwin & McLeary, and afterwards put in the H.B. Recorder.

The rest of the details will be incorporated in a private letter to Baldwin & McLeary (not for the Recorder) to be prepared on Monday (Jan 23).
A.C.B. Jan 22.

would cause the machine to be steered to starboard — that is to the right hand side.

If such a rudder should be placed away out in front near the front control, it would have an opposite steering effect. A deflection of the rudder to starboard would cause the machine to turn to the port or left side.

Now ^{up some point} between these positions the steering action of such a rudder to one side or the other would be nil, and this is the position I want it to have.

When deflected the center of wind-pressure upon the balancing rudder should be as nearly as possible vertically above the center of pressure of the supporting surfaces. Then when the rudder is turned to starboard there will be no tendency to steer the machine to one side or the other (port or starboard); and we may resolve the pressure of the wind of advance into two elements: (1) a horizontal element tending to tip the machine down on the port side to remedy a tip downwards on the starboard side. ~~The~~ The other acting also horizontally ~~along the~~ parallel to the longitudinal axis of the machine tending to steer the head up. ~~as through~~ The resistance introduced by the turning of the rudder being central to the machine and above it will have a steering action similar to that produced by turning the front control at a positive angle to the line of advance.

1910

Jan 22

Saturday

at the Mills 29

I see no reason to doubt that this single balancing rudder will perform all the functions of the two lateral balancing rudders now employed, in remedying a tip of the machine without inducing a turn; and at the same time will support the head of the machine and prevent any diving tendency.

Many advantages also will result when the machine encounters a side wind; and the head will be supported by it while making a turn.

If you have not already commenced the construction of this central balancing rudder I wish you would do so at once; as, in view of possible litigation with the Wright Brothers at some future ~~time~~ time it would be important to use a form of lateral control, that could by no possible construction of the Wright Patent come within the scope of its claims.

I have recently examined the briefs in the case of the Wright Brothers against The Herring-Curtiss Company and Glenn H. Curtiss. They make a great point of the supposed fact that the balancing rudders of the Curtiss control have curved surfaces and not flat, although the Herring-Curtiss people claim that it is not so.

In my opinion the whole case may turn upon this point. The Wright brothers claim that the lateral balancing rudders employed by Curtiss are concave on the under surface and convex above, and argue that even though the balancing rudder on the starboard side be turned at a positive angle to the line of advance, and the rudder on the port side be turned at an equal but negative angle, the resistances introduced at the two ends of the wing - piece would not be equal so that the

1910

Jan 22

Saturday

machine would turn to one side, and require the co-operation of the vertical rudder at the rear to remedy the defect by steering to the opposite side to keep on a straight course.

Thus they argue brings the machine within the scope of their claims. They argue that the wind pressure upon the under surface of the balancing rudder when it is turned at a positive angle to a certain amount will be greater than if the rudder was turned to that same amount at a negative angle so as to bring the wind pressure to bear upon the upper or convex surface of the control. It being well known they assert that the pressure upon a concave surface is greater than upon a convex surface presented at the same angle.

They also claim that on account of the concavity underneath the ~~surface~~ balancing rudders the surfaces of these rudders constitute "supporting surfaces" even when in their normal, and supposedly neutral position, thus making them portions of "the supporting surfaces of the machine."

~~The whole case will probably turn upon the question whether, as a matter of fact, the surfaces are flat or curved.~~

~~It might be the fault of prudence to see that the surfaces of the lateral controls~~

I have no means of knowing whether Curtis employs flat or curved surfaces; but the Wright Brothers have made out such a strong prima facie

1910

Jan 22

Salisbury

at the Olds
31

case that the court has granted them a preliminary injunction against Curtiss. The case will now be heard upon its merits.

In my opinion the whole case may turn upon the question whether, as a matter of fact, Curtiss employs curved or flat surfaces in his lateral balancing rudders.

It would be a matter of precaution for Baedini and McCurdy to make quite sure that their lateral balancing rudders are aeroplanes pure and simple. Flat surfaces that could not be held to be concave on the under side and convex above.

The brief for the Wright Brothers is a remarkably able document. I am not so well satisfied that the Curtiss Case has been equally well managed.

The courts will undoubtedly construe the Wright patent as broadly as possible; and any defense against infringement should be based upon a clear difference of structure and function in the balancing rudders. No mere technicalities will avail for they will undoubtedly impress the court as a species of quibbling to avoid the Wright Patent.

There is no doubt at all in my mind that however the Curtiss case may be settled the Wright Brothers will be after Baedini and McCurdy the moment they attempt to make money by their machines. Let them profit by the Curtiss case by seeing that their lateral controls are perfectly flat; and by securing capital to defend themselves before they sell their machines. In my opinion the balancing rudders evolved by the A.E.A. do not at all come within the scope of the Wright patent; and this opinion is fortified by the fact that the Examiners of the Patent office have not cited the Wright patent against our joint application, which it would be their duty to do.

1910 Jan 22

Sat

at Twin Oaks

if they believed that our claims came within the scope of the Wright patent.

There is no manner of doubt however in my mind that the matter will be contested by the Wright Brothers the moment an opportunity occurs.

Jan. 22. We have about 500,000 women teachers in the U.S. practically all unmarried. Half a million of women, ~~then~~ specially trained to care for children, who are not mothers; and a large proportion of them will never become mothers for they cannot marry without losing their positions. ~~and~~ Their positions enable them to live a full and independent life, with more comfort than would full time, but ~~on the average~~ were they to retire and marry. Their salaries prevent them from marrying, for it would manifestly not be proper to permit married women to be public school teachers during the child-bearing period.

Consider following plan. Do not employ, as teachers of the young, women between the ages of 25 & 45, unless they are widows with children to support. Unmarried women between these ages should not be employed because their occupations would be inconsistent with marriage and their salaries would therefore operate to keep them in celibacy, and it is not in the interests of the community that women specially trained for the care of children should be prevented from becoming mothers.

Married women ~~between the ages of 25 and 45~~ should not be employed until they have passed the child-bearing age (say the age of 45) for it would be manifestly improper for them to continue teaching the young while liable to become mothers.

Widows, with children to support, who are between the ages of 25 & 45 might properly be employed if they desire when re-marriage.

1910 Jan 22

Rat

at Town Hall

33

~~At present time~~ - Ex more are under-estimate!

- (a) At present we have ^{200,000} unmarried women employed as teachers & our public officials, who are between the ages of 25 & 45.
- (2) If we make ^{these} illegal, how will their places be filled? By 200,000 ~~women~~ ^{women} who are widows with families to support, ^{or} married women ~~who are~~ over 45 who have families.
- Supposing ~~the~~ ^{these} married women, or widows, to have, on the average, two children apiece we reach the following result.

Plan 1. The salaries support ^{the} 100,000 ~~unmarried~~ women alone.

Plan 2. The ~~same~~ salaries support not only the 100,000 women, but also 200,000 children of whom they are the mothers.

Can it be doubted that the 2^d plan would be of more value to the welfare of the race than the first, ~~or~~ present plan?

~~Today the population~~
Today the population is deprived of several hundred thousand children by the exposure of public school teachers. ~~And our children are deprived of several hundred thousand~~ ^{And our children are deprived of several hundred thousand} ~~teachers~~ ^{teachers} ~~who would on account of their training make good mothers~~

Ask Booth about Mr. Pratt's Mother's Vineyard work.

Investigate marriages of the staff for Com. on Eugenics.

1910 Jan 23

Sunday

at Fenwick Gate.

Jan 23; Subjects from Menckepusa

Comet visible (not Halley),

Jan 23: Zafra's person (boy with headache).
~~Earthquake~~ Cut open by mistake (boy with headache).
 March: from creates it in Alaska

54

Three severe earthquakes, water shocks were felt in Iceland Jan 22 - no damage reported.

Three more century year shocks were put
Radium valued ~~it~~ in Austria at over one million dollars an ounce
for revenue purposes. Mental attitude towards new ideas:

Mental attitude towards New colonies:

Mental attitude towards new progress

June 23 - Mental attitude towards new progress first antagonistic last. Constructive fact distinctive.
Reception first antagonistic last. The attitude & mind that receives foreigners as enemies
last. It is not conducive to progress. Give every stranger
the same consideration.

the attitude of mind
Past, instead of friends, not conducive to progress. Give every stranger
a welcome to begin with; do not consider him as an enemy
until the objects of his visit have been cautiously
enquired into. Do not begin by antagonism.
Antagonism to new ideas is apt to become instinctive
and the habit of throwing cold water upon new
ideas - tends to quench the enthusiasm & ^{original features} ~~the color~~.

should be completely absorbed. There are good and bad points about ^{everything} ~~propositions~~ ~~and~~ especially about new propositions as first formulated. The perception of good points is the characteristic of the discoverer of new propositions. He is apt to see the good ~~to~~ without weighing ~~the~~ ^{to another} objectiveness. Now when he first presents his new idea ~~to~~ he labors to show the good points ~~which his listeners~~ while his listeners instinctively ~~looks~~ ^{looks} for objectiveness. I would urge that the attitude of the listener should be a sympathetic attitude ~~of~~ ^{to} ~~an attitude of~~ ^{to put his mind} ~~of~~ ^{to put himself in the other's place,}

1910

Jan 23

Sunday

at Twin Oaks 35

Jan. 23! Fairchild, Grosvonts, & Mason, met here this evening as
 Sub. Com. & the Exec. Com. of the A.A.P. T.S.D. to settle about
 the Review. Feb. number begins a new volume.

Association Review
 with
Illustrated Information
 for advanced pupils.

Advanced Pupils' Department.

Illustrated Information.

Subjects: - Keep-us-bird
~~Keep-us-bird~~ Nicaragua
 Forests & conservation.

Jan
 Feb
 March
 April
 May
 June
 July
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 Sept
 Oct
 Nov
 Dec.

Jan 23! ~~At dinner~~ At dinner tonight. W. Alkell, W. David G. Fairchild,
 W. Gilbert H. Grosvonts, W. David G. Fairchild, J. Mason, W. Eichelberger,
 and Alkell. after dinner had business meeting of the Sub. Com.
 of the Executive Com. of the A.A.P. T.S.D.

1910

Jan. 24

Monday

at Lavin Oaks

Jan 24: Wash. Herald: "It costs some people more to live than they are worth" — "One of the best ways to reduce the cost of living is to economize".

1910 Jan 25

Tuesday

at Lavin Oaks

Jan 25: Received a visit yesterday (Jan 24) from a ^{Seila} Miss Asher, of New York, a painter or sculptor who has made a bas-relief of me in ~~the~~ way as a basis for a bronze. She had been guided entirely by a photograph and wanted me to give her a sitting in order to complete the Intaglio. Gave her a sitting yesterday afternoon.

Received a visit from Dr. Benjamin Bilharz, an archaeologist from England though he speaks ^{with a} German accent. Told me he was formerly Secretary of Max Müller. Been engaged in excavations at Herculaneum and came to America expecting to lecture upon the subject. Dr. Keen, President of the American Philosophical Society of Philadelphia recommended him to come and see me. Quite touched by his appearance. He has the face and the eyes of a scientific student and investigator who thinks more of his work than his means of livelihood. I gathered from him that America had so far shown little interest in archaeological researches. In fact I came to the conclusion from his modest statements about himself that instead of meeting with success that he was actually in financial distress and had probably been directed to me in the hope that I would help him. The Dr. however, appeared to be so little accustomed to being placed in the humiliating circumstance of asking financial assistance from a perfect stranger that he could not bring himself to do so and left me to read between the lines. He spoke only of his work and of his desire to lecture and of his failure to meet encouragement in America.

He states that he has several hundred photographs and lantern slides of Herculaneum and Pompeii with him here. His appearance was quite pathetic and I came

1910

Jan 25 — Tuesday — at New York

to the conclusion that he was a gentleman in distress, one of those fine scientific men who are unable to look at the practical side of life.

I invited him to come to my next Wednesday evening where he might meet some of the scientific men of Washington. They we can then size him up and we may enable him to give a lecture upon Heculaneum if we find that he really has material of value. He looked ill and seemed to me to be reduced to actual want though he asked for no financial assistance and could not bring himself to speak of that which was of the first consequence to him. I may be mistaken in my estimate of the man, but I was so touched by his appearance that I told him before he went away that I judged from what he said that he was in actual need and gave him assistance without his asking for it. He was so overcome that he could not speak for some moments, shook me warmly by the hand and altogether acted as the man I believe him to be. If he is a gentleman and an archaeologist he will undoubtedly turn up at the Wednesday evening meeting. If he is not I have seen him for the last time. C. L. B. X

Last night (Jan 24) attended the Annual Banquet of the Alumni of Dartmouth College given to the new President of Dartmouth, President Nichols. There was a large gathering at the New Willard under the Chairmanship of Mr. Barrett of the Bureau of American Republics. The meeting was addressed by President Taft, by the British Ambassador, by the French Ambassador, and by Speaker Cannon.

Speaker Cannon in the course of his address seemed to single me out. I was somewhat surprised that instead of addressing his remarks to the Company generally and to the Chairman or President he seemed to be looking at me and addressing me emphasizing his remarks with up-lifted finger. I glanced to my right to see whether there was anyone near me to whom he was speaking. The French Ambassador was beside me on one side, and an unknown gentleman on the other and it really looked as if I was the person he was addressing. In a little while he made it very clear by addressing me by name

1910

Jan 25

Tuesday

at Twin Oaks

He said Mr. Beell, I don't know whether you are a College-bred man or not, but that he would take me as an example of the influence of the scientific man upon Congress. He then spoke of the appropriation that had established the Astro-physical Observatory; and of the appropriation for Langley's Aerodrome, and said that he had given his support as Speaker simply because I believed in them. He didn't know anything about the subjects himself but trusted the scientific man.

It was not so very long ago that members of Congress were taken to task for the War Department Appropriation for Langley's Aerodrome and it would have pleased poor Prof. Langley, had he been living to have heard the Speaker of the House of Representatives now claiming credit for the fact that he had assisted in gaining that much maligned appropriation. At the same time I was considerably astonished to find that my interest in the matter had had anything to do with the result. A.C.B.

Jan 25: President Nichols of Dartmouth is to dine here with us ~~to night~~ this evening and spend the night at Twin Oaks. Guests expected at dinner are:- Mrs. Seidmore and Miss Seidmore and four others including a brother of Mr. Fairchild and his wife. A.C.B. X

1910

Jan 27 ————— Thursday ————— at Turn 39/2

* Jan 27: Last Tuesday evening (Jan 25) we had at dinner here Mrs. Seidmore, Miss Seidmore, Mr. and Mrs. ^{Kirshener} Kirshener (Mrs. Kirshener is a sister of Mr. David Fairchild), Mr. and Mrs. Wilcome (Mr. Wilcome is the originator of the Wilcome bacteriological laboratories at Kearn Hill, England, Kartum, Africa, and the floating laboratories on the Blue Nile and White Nile for the study of tropical diseases), Mr. and Mrs. Fairchild, and Mr. and Mrs. Bell. President Nichols was unable to be present. A.C.B. x

Mr. Sammett

Wednesday evening Jan 26

* Jan 27: Last night (Jan 26) there was a large attendance at the Wednesday evening meeting including a number of new men so that I may not be able to give the names of all present. Among those who attended were: Mr. Gussner, Mr. Fairchild, Dr. Bell, Mr. Rastbun (Asst. Secretary of the Smithsonian Institution), Prof. J. W. Clarke, Dr. Merdun Gill, Prof. Bauer, Gen. Sternberg, ^{Gifford} Pillsbury, Dr. Stiles, Mr. Reichardt (recently returned Bokara) Mr. Ripply, (father-in-law of Mrs. Helen (Bell) Ripply), Prof. Rosa of the Bureau of Standards, Dr. Smith of the Fish Commission, Mr. Nersely, Secretary of the Inter State Commerce Commission, Mr. Hess of the Geological Survey, Mr. Kirshener a lawyer from Kansas City brother-in-law of Mr. David Fairchild, Miss Waddel, Mr. Tyler, Prof. Raymond, and a number of others whose names I forget (Mr. Fairchild perhaps may help me to recall the names).

Mr. Sammett

Mrs. Kirshener
sister of Mr. Fairchild
was also present.

Admiral Pillsbury spoke of his work in deep sea sounding and gave a description of the funnels and apparatus employed in his remarkable exploit of anchoring his vessel in water having a depth of about 2000 fathoms (about 2 miles). Such an achievement had never before been accomplished, nor since. He spoke of the effects of pressure at great depths. At a depth of only 40 or 50 fathoms a hollow to shell of thick glass was crushed in by the pressure of the water.

1910

Jan 27

Sunday

at Tun Oak

It had been enclosed in a bag of canvas I think. When the bag was brought up the remains of the ball appeared to consist chiefly of glass powder so small were the fragments of the glass shell. He described the currents of water existing between Florida and Cuba, in the Gulf of Mexico, and in the Caribbean Sea. The passages between the islands forming the ^{rim} of the Caribbean Sea were quite shallow, one or two hundred fathoms I think was the deepest. Dr. Bell said that either the late Prof. Baird or the late Dr. Brown Goode had told him of a remarkable experiment they had made, or intended to make, with a Fish Commission vessel on which they were hatching out codfish. The Caribbean Sea they said occupied a deep basin with a shallow rim. The surface water was warm but the deeper water quite cold, and they had proposed to try the experiment of planting codfish in the deep water of the Caribbean Sea. If the codfish lived they could never get out of the deep basin on account of the warm surface water. Dr. Bell did not know whether the proposed experiment had been tried and whether it had succeeded.

Admiral Pillsbury had heard nothing of the experiment and referred the matter to Dr. Gill and Dr. Smith of the Fish Commission who replied that the experiment had not been made to their knowledge.

Dr. Bell then asked Admiral Pillsbury at what depths in the ocean life was found.

Admiral Pillsbury replied that soundings had been taken exceeding 4000 fathoms in depth. Life had been found at very great depths but at what

1910

Jan 27

Thursday

at 41

depth he was unable to say.

Dr. Theodore Gill gave a most interesting account of certain forms of ~~angler~~ fish which had been taken at a depth of from 1000 and 2000 fathoms. Below this depth down to the very lowest depths reached other forms of life had been dredged, sponges, etc.

The angler fish descended lived at such a depth in the ocean that there was little or no light, the sun being unable to penetrate thousand fathoms of water to any great extent. These deep sea Anglers were provided with the usual fishing rod extending up to the nose found in the ~~surf~~ shallow water Anglers, but the little dangling surface of skin that formed the "bait" in the common Angler had been modified into a bulb which had phosphorescent qualities. They really carried a little lantern at the end of their fishing rods! The small fish attracted by the light came within easy reach of their voracious jaws! He described several forms of the deep sea Anglers, all of which were provided with lanterns.

Dr. Smith: gave some account of the work of the Fish Commission and spoke of the Sargasso Meadows found in Mid Atlantic consisting of hundreds of square miles of floating seaweed — the sargassum weed, and of the curious fish that inhabited the sargassum meadows. Occasionally large masses of the sargassum weed became detached from the main portion and drifted into the Caribbean Sea and Gulf of Mexico, and also reached the ^{eastern} coast of the United States. Occasionally large masses of sargassum weed appeared in Buzzard's Bay from which strange fish had been taken to the Fish Commission's Station at Wood's Hole.

Dr. Gill: spoke of a form of Angler fish found inhabiting the sargassum weed and of a ^{small} fish which could inflate itself with air or water like a balloon so as to be too large to be swallowed by larger fish.

Dr. Bell: spoke of a small fish locally known as the "puffing pig" sometimes caught by small boys on Martha's Vineyard.

1910

Jan 27

Thursday

at Lunenburg

The boy would hold the fish in his hand and then strike it or tickle it when it would puff itself up like a small balloon. He would then throw it upon the ground and stamp upon it when ——— bang it would go like a burst paper bag.

Dr. Gill gave the scientific name of the fish which proved to be much longer than the fish itself, indeed so long that I do not venture to record it here. He also spoke of somewhat similar puffing fishes which were found in the Mediterranean on the coast of Egypt which afforded great delight to the small boys of that country who were accustomed to stamp their feet upon the blown-out fish for the pleasure of hearing the report of the explosion.

Mr. Gannett the new President of the National Geographic Society then made a few remarks.

He was followed by Mr. Reichardt who spoke of Bokara. Mr. Maely, Secretary of the Inter State Commerce Commission spoke of the great fatality among railroad men especially among those engaged in coupling cars. His statistics were very extraordinary, but I cannot hope to give any intelligible account of his remarks. If I remember rightly he said that among 32,000 railroad employees engaged in handling trains there were about 12,000 men killed or injured in a single year. This probably referred to a few years ago for he showed by statistics and by graphical diagrams that the efforts of the Inter State Commerce Commission to reduce accidents on railroads had been followed by a marked diminution in the proportion of men injured by coupling cars. As I remember his graphical diagrams it seems to me that the number of men killed and injured on railroads has been, and is,

1910

Jan 27

Thursday

at Fair 43

Constantly increasing although the number of accidents from coupling cars is diminishing. The address was a most interesting one and of great importance. I am only sorry that Mr. Cox was not present to make note of the points of the address for the benefit of the Reader.

Mr. David Frauchiger presented a form of sea-kale which had been introduced by the Department of Agriculture. It could be cultivated as easily as the common cabbage and was believed to be a new & valuable new food product. Specimens of the sea-kale were served up at supper both raw and cooked and were much appreciated by all present. A.C.B.

Dr. Stiles also made an address upon the hook worm disease and the gift of one million dollars by Mr. Rockefeller to help towards exterminating the disease in the South. The money was to be used largely in a campaign of education in the South to teach the people what to do to avoid the disease and to cure it. X

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13.16 2
19.74 3
26.32 4
32.90 5
39.48 6
46.06 7
52.64 8
59.22 9

65.80 10
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62
59
8

✓1
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1✓

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$$\begin{array}{r} 9 \quad 11.36 \\ 6.58 \\ 2.42 \\ 1.974 \\ .446 \\ \hline 3948 \\ 512 \end{array} \quad \begin{array}{r} 0 \\ 1 \\ \hline 8 \end{array} \quad \begin{array}{r} 1 \\ 8 \\ \hline 8 \end{array} \quad \checkmark$$

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$$\begin{array}{r} 2 \quad 10.30 \\ 1.974 \\ .026 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ 3 \\ \hline 8 \end{array} \quad \begin{array}{r} 1 \\ 8 \\ \hline 8 \end{array} \quad \checkmark$$

$$\begin{array}{r} 7.58 \quad 11.06 \\ .42 \\ .3948 \\ \hline 252 \end{array} \quad \begin{array}{r} 7 \\ 7 \\ \hline 0 \end{array} \quad \begin{array}{r} 1 \\ 8 \\ \hline 0 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4 \quad 10.60 \\ 3.948 \\ .052 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ 6 \\ \hline 7 \end{array} \quad \begin{array}{r} 1 \\ 8 \\ \hline 7 \end{array} \quad \checkmark$$

$$\begin{array}{r} 0.658 \quad 10.15 \\ .342 \\ .3290 \\ \hline 13 \end{array} \quad \begin{array}{r} 1 \\ 6 \\ \hline 4 \end{array} \quad \begin{array}{r} 1 \\ 8 \\ \hline 4 \end{array} \quad \checkmark$$

X Jan. 27: W & W: Chas Bell called here this evening after dinner. X

7, 10, 10, 10, 10, 10 (62)
OK

Jan 28

Friday

at Twin Oaks

Dictation by A.G.B. Taken down by C.L.C.

Practical Eugenics.

In attempting to formulate practical plans for the improvement of the inheritable qualities of the human race, and an important elementary principle to bear in mind is, that persons having desirable qualities should marry and have offspring. It is also important that the desirable should marry the desirable so, as to increase, in the offspring, the desirable qualities possessed by the parents, for the offspring of desirable parents have a greater tendency to transmit their desirable qualities to their descendants than their parents had.

The problem then for us to consider is how to promote the marriage of the desirable with the desirable.

Public opinion is the great agency that must be evoked to effect this. It is first necessary to create a public opinion that the interests of the community demand that the desirable should marry and have offspring; and that the desirable should choose desirable partners.

Several questions at once arise: Who are the desirable? And what social agencies can be evoked to cause them to seek one another in marriage. Then again what agencies can be evoked to promote marriages in general, and the marriages of the desirable in particular.

I shall first examine these points in a general way, and then take them up in detail.

The vast majority of the community are normal persons possessed of desirable qualities in a moderate degree.

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Friday

at Tuscaloosa 13

They represent the average type of the race. The desirable, who possess these qualities in a much greater degree than the average, are comparatively few in number; and are scattered through the community so that comparatively few of them are found in the same place or know one another.

The necessary preliminary to marriage is personal acquaintance. So that any plan to promote the marriages of the desirable with the desirable should include some plan for making the desirable personally acquainted with one another.

It may be well to pause here a moment and consider this point as it really lies, at the root of the difficulty in promoting the marriages of the desirable with the desirable. Under present conditions few desirable persons have any extensive acquaintance with equally desirable persons of the opposite sex.

Perhaps this may be better understood by considering some inheritable quality which every person will admit to be a desirable quality, which should if possible be increased and intensified in the community at large.

Good health, and a good constitution, and long-lived ancestors may be taken as a mark of a most desirable inheritable quality.

Take the case of a man in perfect physical condition whose parents and grandparents have lived to a good old age without the impairment of their faculties. Then all should recognize that the interests of the community demand first that this man should marry and have offspring; and secondly that he should choose as his partner in marriage a woman having the same characteristics.

But where can he find a woman in perfect physical condition whose ancestors lived to old age without the impairment of their faculties.

Under present conditions it is a mere matter of chance whether he comes in contact with such a person and whether they are mutually attracted to one another. He may meet many young women who are apparently in good health and in perfect physical condition; and he and his friends may easily recognize the fact without the necessity of investigation. If he is surrounded by a healthy public opinion he will have instilled into his mind the feeling that it is his duty to himself, and to the community in which he lives, in consideration of his own good health and his long-lined ancestry that he should choose his partner from some of these girls rather than choose a partner in poor health, or imperfect physical condition. This feeling of appropriateness will be a powerful influence in determining his choice especially if backed up by the opinions of friends and relatives.

In a similar manner the influence exerted upon the desirable girls by a properly formed public opinion would bias them in favor of accepting a proposition of marriage from such a man rather than from a weak and sickly man with no indications of a robust constitution.

At present it is to be feared that a public opinion exists that would subordinate the personal qualifications of the man and woman to considerations of really only secondary importance. I am afraid that the influence of parents and friends would often lead a girl

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Friday

at New College 4

to accept a weak and sickly man if he had wealth rather than a ~~man~~ poor man who, otherwise would be personally desirable. It is in every way in the interests of the community that public sentiment should be so modified that the personal fitness of the suitor should be the first consideration, and his financial condition be a secondary matter.

The physical condition of young men and women is a matter that can be observed, but a knowledge of the ancestry is not a matter that comes directly under observation, and yet it is a matter that should be held, by public opinion as of importance.

The interest of the community in marriages, relates not so much to the marriages themselves, as to the results upon the offspring. It is the past that forecasts the future. It should be universally recognized that the marriage of persons who have had strong, healthy, vigorous, long-lived ancestors is more likely to be followed by the production of offspring having the same characteristics, than in cases where the ancestors have been short-lived, or sickly.

Here it is a little more difficult to see how to promote the marriages of the desirable who had desirable ancestors with one another. The sentiment may exist; and yet on account of the absence of general knowledge relating to ancestry, it may not be able to exert much influence. It is a mere matter of chance whether any of the desirable girls with whom a desirable man is acquainted have the right kind of ancestors, and the chances are against it.

The young men, and young women with desirable ancestry are probably very much scattered among the community, and

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Jan 28

Friday

at Turn Club

rarely know one another. Yet they must know one another before marriages can be contracted between them.

Here then is the problem: How to make them know one another. This difficulty is not limited to the case of desirable ancestry; but includes all cases in which the desirable qualities are not obvious upon inspection.

If we can devise any plan for bringing together persons possessing such qualities, which is to say the least, doubtful, it would be of the greatest importance from the point of view of Eugenics.

There is one point in this connection that affords ground for hope. People do not object to having their excellencies known: It is their deficiencies or defects that they desire to keep from public observation.

For example, while people would naturally object to having it known that ancestors or close relatives were insane; few people would have any objection to the publication of the fact that all their parents - grand-parents, and other known ancestors had lived to a good old age without impairment of faculties.

In our public schools and colleges it is quite the custom to record the physical condition of the pupils. There would be no objection on the part of school or college authorities that the records of the gymnasium should be examined by competent persons or that statistics relating to physical condition should be published. The only objection that could be raised

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Jan 28

Friday

at the City 49

would be to the publication of names. But here there could be little objection to supplying competent students with the names and addresses of pupils who were remarkable for their good physical development so that an enquiry into their ancestry might be made. The parents and friends of such pupils would in a large proportion of cases be willing to give information concerning the ancestry if the names were not to be published; and the study of the ancestry would reveal in a few cases long-lived ancestors on both sides of the parental tree. The families, in such cases, as a rule, would have no objection to letting it be known that their children came of such excellent stock and in most cases they would be pleased, rather than offended, to have the names and addresses of their children published. This is all we want. These few cases alone are the ones that are important from the point of view of Eugenics.

I do not think that there would be much difficulty in obtaining permission from parents and friends, to the publication of a list of names of pupils in our public schools and colleges who have acceptably good ancestry.

As a general rule, I think, that parents and friends would not only be glad to see the names of their children published in this connection, but would also be anxious to see the names of other children who possess the same qualifications.

Take the case of a parent, say, John Smith, whose son belongs to the desirable class. He sees in the same list Mary Brown, Jane Robinson etc., and if any of these girls are known to him personally or become known to him in

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Jan 28

Friday

at M. O.

process of time, the mere knowledge that their names appeared in the desirable list will influence him in letting his son become acquainted with them.

All plans at first are impracticable until their details have been worked out; but I think that we have here a very promising plan which should be further rugured into. A.C.B.

1910

Jan 29

Saturday

at M. O.

From the D.B. Recorder Vol II p. 457

9.13	
4.73	13.86
3.61	17.47
3.36	20.83
2.07	22.90
1.91	24.81
1.62	25.43
1.28	26.71
1.28	27.99
1.20	29.19
1.08	30.27
0.95	31.22
0.87	32.09
0.87	32.96
0.83	33.79
0.83	34.62
0.74	35.36
0.70	36.06
0.70	36.76
0.70	37.46
0.62	38.08
0.62	38.70
0.62	39.32
0.54	39.86
0.54	40.49
0.49	41.13
0.49	41.87
0.45	42.52
0.45	43.27
0.45	43.92
0.45	44.67
0.41	45.08
0.41	45.49

Number of Distinct Words	Number of times occurring used	Total Words
17	9	27
3	8	16
2	7	14
2	6	36
6	5	25
5	4	68
17	3	87
29	2	110
55	1	225
225		1088
361		

a	302	now	311
b	97	now	96
c	125	now	131
d	81	now	84
e	64	now	69
f	64	now	67
g	44	now	47
h	44	now	83
i	81	now	177
j	170	now	11
k	11	now	5
l	4	now	37
m	35	now	112
n	109	now	36
o	34	now	214
p	21	now	101
q	94	now	3
r	3	now	58
s	53	now	174
t	64	now	487
u	484	now	37
v	35	now	12
w	11	now	128
x	124	now	8
y	8	now	

1910

Jan ²⁹ ~~28~~at Fair ~~at~~ ^{at} Fairat Fair ~~at~~ ^{at} Fair

a	134	changed	143	
b	25	"	27	
c	55	"	61	
d	22	"	25	
e	30	"	35	
f	27	"	30	321
g	17	"	20	
h	13	"	15	
i	58	"	65	
j	-	"	-	
k	3	"	4	
l	13	"	15	119
m	51	"	54	
n	8	"	8	
o	96	"	99	
p	34	"	41	
q	2	"	2	204
r	10	"	15	
s	41	"	51	
t	225	"	228	
u	19	"	21	
v	9	"	10	
w	42	"	46	
x	-	"	-	371
346				1015
934				72
				3
				1058
				1072

Jan. ²⁹ ~~28~~: W. & Mrs. Stuyvesant Pellot & their daughter Rosalie stayed here over night.

Jan. ²⁹ ~~28~~: Consult Supt. of Public Schools as to the nature of the statistics that can be collected from schools.

The inheritance of good health. List of pupils in our public schools showing remarkable physical development with some account of their ancestry.

List of pupils ~~with~~ having long-lived ancestry. We can get from the father, an account of his parents & grandparents. From the mother, an account of her parents & grandparents. Thus we can obtain information about the parents, grandparents, & great-grandparents of children.

Jan 29

at Twin Falls

Pauline H. Green
living at —

for Robert H. Green
living at —
d. and yes

John H. Hill

yes, living at —
d. and —

Try its practicability on an owner's family first.
Prepare the statement — +

Children of Mr. & Mrs. Robert Green

Father's father

Father's father
Father's mother
Mother's father
Mother's mother

living at old age?

yes no	age at death
yes	76?
yes	75?
no	87
yes	62
no	d. at 37
no	
yes	
yes	

Wife's father
Wife's mother

Father's father
Father's mother
Mother's father
Mother's mother

Mr. Harb - 9
Mrs. Wm. - 9

yes no or don't know	age at death	Number of children

Father's name

age

mother

Father's father
Father's mother

mother's father
mother's mother

Husband's father
Father's mother
father's mother for me
yes no yes no

Wife's father
Father's mother
for me for me
no no yes yes

Ag B
Green

1910 Jan 30 ——— Sunday ——— at Devin's Office 53

Jan. 30: Most of the books belonging to Mr. Hubbard have been divided among the family. I notice two Family Bibles. One goes to Epsey (Mr. Bellot) and the other to Grace (Miss Grace Bell).
I find the following entries & Births, Marriages, & Deaths in these Bibles.

In Bible taken by Mr. Bellot.

Marriages: At New York Wednesday Evening Oct. 21st 1846, by Rev. S. Skinner, Fardine Greene Hubbard & Gertrude Mercer McCurdy.

Births: Fardine Greene Hubbard born at Cambridge, August 25th 1822

Gertrude Mercer McCurdy born at ~~New York~~ New York,

March 12th 1827

Robert McCurdy Hubbard born at Boston

December 9th 1847.

Deaths ——— none recorded.

(The above records are believed by Mr. A. E. Bell to be in the handwriting of her mother Gertrude Mercer (McCurdy) Hubbard)
A. E. B.

Over

1910 Jan 30 — Sunday — at Twin Ark.

Entire in Family Bible Taken by Miss Grace Bell.

Marriages:

Frederic Green Hubbard to Gertrude Mercer McCurdy
New York October 21st 1846 by the Rev. Wm. H. Skinner.

Births:

Frederic Green Hubbard born at Cambridge
Aug. 25th 1822.

Gertrude Mercer McCurdy born at New York
March 12th 1827

Robert McCurdy Hubbard, born at Boston
December 9th 1847

Gertrude McCurdy Hubbard, born at Boston,
October 1st 1849

Michael Frederic Hubbard, born at Cambridge
Nov. 25th 1857

Roberta Wolcott Hubbard, born at Cambridge
June 4th 1859

Grace Blatchford Hubbard, born at Cambridge
Oct 9th 1861

Marian Hubbard, born at Cambridge
April 9th 1865

Deaths: Robert McCurdy Hubbard died at Boston
October 11th 1849 aged 1 year 10 mos and 2 days.

(All these records are believed by Mr. A. G. Bell
to be in the hand-writing of his grandfather
Wm. Robert H. McCurdy — *apx* J)

1910 Jan 31

Monday

at Twin Oaks

Get heliograph ribbon
See Booth about Review

Volta - Munstschaff, Gramme, ~~Reuben~~ Bell,

1910

Feb 1

Tuesday

at Twin Oaks

Consulted C. J. Bell last Sunday (Jan. 30) about the advisability of my applying for a patent on the central balancing rudder, like a flag, or sail, above the center of the machine; and as to whether I should have such a patent issued assigned to him as Trustee of the A. E. A.

He recommended my applying for a patent, but thought that there was no necessity for my assigning it to him as Trustee of the A. E. A., unless I so desired. It was not a matter that could be claimed by the A. E. A. The patent for the single central balancing rudder, like my patents on tetrahedral structures would belong to me personally. Of course I could give them to the A. E. A. or make any disposition of them I desired, but these patents would not come under any A. E. A. agreements, because the inventions to which they related were not made during the life of the A. E. A. He recommended me to apply for a patent at once in my own name as in the event of the Wright Brothers litigation being successful; and in the event of good claims

1910

Feb 1

Tuesday

at New York

not being secured to the A.E.A. in the joint application, the proposed single central balancing-rudder might turn out to be of great importance, and it would be well to have an application filed for it before exhibiting it publicly on the ice this winter. 0

Yesterday afternoon (Jan 31) I called upon Mr. Cameron of the firm of Mauro, Cameron, Lewis & Massie, explained to him the central balancing rudder and how it would work and consulted him as to whether it would be advisable for me to apply for the patent before exhibiting the invention publicly this winter on the ice.

Mr. Cameron said, that if the rudder would work as I believed it might, in view of the Wright Brothers litigation, and in view of the doubtful status of the A.E.A. joint application be a matter of great importance, and that it would be well that an application should be on file before there could gain an idea of the new balancing-rudder from published descriptions of the experiments at Baddeck. He thought that many of the difficulties the A.E.A. applications were experiencing in the patent office arose from premature publication of the A.E.A. experiments at Hammondsport, which had stirred up others to file applications in the patent office for inventions in line with the Hammondsport experiments. That these applications were then thrown into interference with the A.E.A. applications thus occasioning delay in the patent office decisions upon the A.E.A. applications.

I then instructed Mr. Cameron to prepare an application in my name to be filed in the patent office as soon as possible.

In order to help him in preparing the application I have promised to write a description of the central balancing rudder and its mode of operation. I told him that I was averse, upon general principles, to applying for a patent upon an invention that had not yet been successfully reduced to practice; but he assured me that the patent office held that an application for a U.S. patent constituted a reduction to practice.

I stated that ~~we~~ I would try the new balancing device very soon at Baddeck ~~for~~ but it was probable that actual experiment would lead to some modification in the construction, ~~which~~ which might lead to the advisability of changing ~~the~~ or modifying the claims, and that I knew that difficulties would arise in the patent office if new matter was injected into the application after being filed. Mr. Cameron replied that this difficulty, if it arose, could be easily met, by withdrawing the application, and filing a new one, which should include the new matter claimed. A.C.B.

Feb 1: Mr. David Fairchild has been out of sorts for the last day or two and is confined to bed — nothing serious. He was unable yesterday (Jan 31) to attend the meeting of the sub-committee of the A.A.P.T.S.D. which had been called to meet at 1331 Connecticut Avenue, yesterday (Jan 31) at lunch. The meeting was therefore postponed until his recovery. He will be unable to attend the dinner to be given by me to-night at 1331 Connecticut Avenue to the Board of Managers of the National Geographic Society. A.C.B. x

1910

Feb 4

Friday

at Turn Gables

Feb 4: - Gave a banquet Tuesday (Feb. 1) to the Board of Managers of the National Geographical Society. - Present Mr. Gannett, the new President of the Society, Mr. Tittmann, the new Vice-President, Mr. Willis Moore, the retiring President, Dr. MacDonald, Gen. John M. Wilson, Dr. C. Hart Merriam, Mr. John Jay Edson, Mr. C. J. Bell, Mr. Gilbert H. Grosvenor, Mr. Corville, Mr. Austin, Secretary, Mr. Blount, Mr. Eichelberger, Mr. La Force, Mr. Kauffman, Prof. J. Howard Gore, Mr. George Otis Smith, Director of the Geological Survey, Commander Peary, A. G. Bell, Admiral Pillsbury.

Prof. Gore, on behalf of the sub-committee appointed to examine into the question whether anyone had reached the North Pole before Commander Peary had, and so, reported that there was absolutely no evidence that Dr. Cook had reached the Pole, and the committee asked to be discharged.

In my opinion it was a most disappointing report going no further than the report of the Copenhagen University, amounting substantially to the verdict "not proven." I had expected that Prof. Gore's committee would have submitted positive proof, in the form of scientific observations, that Cook had not reached the Pole. It proved to be a milk and water report amounting simply to "not proven." It was accepted by the Board, and then it was decided by a rising vote, unanimously that on the medal ~~going~~ given to Peary he should be named as the "discoverer" of the North Pole.

Commander Peary then addressed the Board on the subject of Antarctic exploration and proposed that the National Geographic Society and the Peary Arctic Club should jointly send an expedition this year to the Antarctic Continent and attempt to gain the South Pole for America. He stated that the Peary Arctic Club would be glad to contribute

the Arctic steamer "Roosevelt," fully equipped for the purpose if the National Geographic Society would guarantee the sum of \$50,000 and that the Peary Arctic Club would assume one-half of any further expenditures that might be required.

Admiral Pillsbury stated that a proposition was now under consideration by the U.S. Navy Department to send a Government expedition to the Antarctic Regions next year, not to seek the South Pole, but to verify and extend the discovery of Wilkesland. The discovery of the Antarctic Continent was due to an American, Wilkes, who had commanded an expedition which had been sent to the Antarctic Regions by the U.S. Government about 1832 if I remember rightly, or at all events before 1840. He had sighted the Antarctic Continent at quite a number of points, but had not landed at any. The land had been named in his honor, Wilkesland. His observations however had been disputed, especially by the English, and the English maps of recent date had omitted the name Wilkesland altogether. It was now the intention of the U.S. Government if Congress would make an appropriation for the purpose, to send two vessels to verify the existence of Wilkesland and to follow up the discovery of Wilkes by landing and exploring the lands he had observed. An appropriation of \$400,000 would be asked for this purpose.

The Navy Department had contemplated the purchase of the "Roosevelt" as one of the vessels to be employed.

Commander Peary stated that two British expeditions were now being fitted out, one under the command of Capt. Scott, and the other under Lieut. Shackleton, with the object of following up the discoveries of Scott and Shackleton and of reaching the South Pole.

1910

Feb 4

Friday

at New York 61

He thought that, by taking advantage of the fact that we had a vessel the "Albatross", which was specially equipped for Arctic work, an American Expedition could be landed upon the Antarctic continent this year in time to compete with the British in the discovery of the South Pole with good prospects of arriving there first. As the landing would be made upon an entirely unknown part of the Antarctic continent the expedition would result in an extension of knowledge relating to the Antarctic Continent even if it did not reach the Pole. The proposed Government expedition could not start before next year, and would not include among its objects the discovery of the South Pole. He therefore urged an independent American expedition to start at once. It was the general sense of the Board that such an expedition as that outlined by Commander Peary should be sent out by the National Geographic Society, and the Peary Arctic Club if it could be done without touching the surplus funds now possessed by the Society, and the finance committee was called upon for an opinion.

Mr. C. J. Bell, Chairman of the Finance Committee stated that he believed there would be no difficulty in raising the amount required if by voluntary subscription if Commander Peary himself should head the expedition; but that it would be very difficult to do so unless a leader should be selected who would command the confidence of the Society and the public.

Commander Peary replied that he would not lead the expedition himself; and that he was not prepared, at the present moment to name a leader.

The position of Mr. C. J. Bell seemed to be generally endorsed by the members of the Board. The meeting, being informal, could not take any definite action, excepting to refer the whole matter of an Antarctic Expedition to the

Research Committee and to the Finance Committee for recommendations to be reported at a specially called meeting of the Board.

The banquet, which was held at 1331 Connecticut Avenue, was a great success, and will be long remembered by those present. A. C. B.

Feb 4: Wednesday evening meeting Feb 2, 1910: Present:

A. C. Beal, Dr. Dall, Mr. Gilbert H. Grosvenor, Prof. Merrill, Prof. Raymond, Mr. Darton, Dr. Irving, Dr. Kohr, Mr. Welcome, Gen. Sternberg, ~~Mr. B. J. M. B. J.~~ Mr. Bryce, Mr. Putnam, Mr. Coe, and ~~two others~~, Mr. Charles Marsh, and one other. Mrs. Gilbert H. Grosvenor and Mrs. Charles Marsh were also present.

Mr. Grosvenor spoke of Commander Peary's proposition to the Nat. Geog. Society to send an expedition to the Antarctic Continent. Mr. Grosvenor said that an account of this proposed expedition ^{had been} ~~was given~~ in the Evening Star that evening (Feb 2). He said that Commander Peary would not go himself, but that the name of Capt. Bartlett had been suggested as the leader. In reply to the objection that Capt. Bartlett was a British subject, Mr. Grosvenor said that Capt. Bartlett proposed to become an American citizen, and had taken out his first papers of naturalization. Mr. Grosvenor also referred to the expedition which had been sent out last year by the Nat. Geog. Society to explore the glaciers of Alaska. ~~Dr.~~

Dr. Dall then spoke upon the glaciers of Alaska and referred specially to the muyr glacier which had receded several miles within the last few years. This he thought had been due to severe earthquakes in Alaska which had shattered the protruding tongue of ice which had been pushed out several miles into deep water, this tongue of ~~floating~~ ice, although apparently forming

1910

Feb 4

Friday

at Fun Oakes

a portion of the solid land because covered with earth and stones in places and even bearing on its surface living fur trees, was really floating ice with deep water below. It was subjected to great pressure from the water which supported it, ^{at} and the free extremity ice bergs were constantly breaking off. The earthquakes that had occurred in Alaska two or three years ago had shattered the floating ice for several miles, and the fragments had drifted off in the form of ice bergs. This accounted for the fact that the extreme end of the muys glacier had apparently retreated for several miles, although there had been no change of climate. The fact was that the glacier was advancing at its usual rate, but that the protruding portion which had been for so many years solid ice with earth, stones and trees upon it had disappeared, leaving a deep fiord of open water. There had been no real retreat.

Dr. Bell then called attention to the Punct-Ballinger controversy about the coal fields in Alaska and asked Dr. Dall for information concerning the coal deposits there.

Dr. Dall then spoke of the great extent of the coal measures of Alaska and ~~that~~ stated that through volcanic action a considerable portion of the bituminous coal had been converted into anthracite coal of the finest description. He stated that Mr. Darton of the Geological Survey ~~had~~ who was present had been making a special study of coal mines, and that he might perhaps be able to give further information upon the subject.

Mr. Darton said that he was not familiar with the conditions in Alaska, but that he had been studying the coal mines of Penn. and Mexico with the object of determining the causes of the disastrous explosions that had occurred there. He thought that the information collected by the Geological Survey would enable us to discover dangerous conditions in time to prevent loss of life from these terrible explosions.

He stated that the strata ~~at~~ were much distorted and that the points of flexure cracks had occurred which gave off gas in varying proportions. He spoke of no mine in which the coal deposit formed a saucer-like depression; galleries had been carried through this depression almost horizontally and then had been carried up at a steep angle to a higher level where again horizontal galleries existed. The gas formed in the lower levels gradually found its way to the upper level and it was in this upper level that the explosion took place. An explosion once started was apt to be propagated by coal dust raised in the mine by the initial explosion so that an explosion once started would be propagated through the whole mine. He stated that various gases were given off by the coal and specially spoke of the gas CO which could not be detected by odor and was not by itself explosive. Men were frequently overcome by this deadly gas without knowing what had happened to them.

Thirty two men were taken out of a mine last year in Vancouver who had been asphyxiated by this gas. The effects had been so deadly that men who had emerged from the mine apparently uninjured died a few hours afterwards from the effects of the exposure. One man had carried his brother from the mine to a hospital and had ~~been~~ ^{then} succumbed himself, dying within a few hours.

Dr. Koter was then asked as to the effects of this gas upon the human body.

Dr. Koter did not know precisely what gas was referred to or its effects upon the human system, but he said that coal miners generally were affected by a disease of the lungs caused by the presence of coal dust in the air they breathed.

1900

Feb 4

Friday

at Fair

They were very subject to tuberculosis from this cause and post mortems had revealed the fact that their lungs were black from the presence of coal dust. Coal mining was an occupation dangerous to life, and that they were subject to various forms of disease affecting the respiratory passages and the lungs. The fatality however from tuberculosis was not nearly so great among coal miners as among men who worked at polishing with emery wheels. The particles of emery powder breathed in by these men in the course of their operation produced great irritation in the lungs leading to many cases of tuberculosis. He said if I remember rightly that about 50% of the men who worked with emery wheels suffered from tuberculosis from a greater or less extent.

Gen. Sternberg then exhibited a graphical chart showing the death rate ^{from tuberculosis} among the white and colored population of the District of Columbia for a great many years past. The death rate, from this cause, especially among the white population showed a progressive diminution which was specially marked during the latter years ~~1896~~ 1906, 1907 and 1908. In fact if the same rate of diminution should continuously go on it would lead to the total elimination of tuberculosis from the District in about 20 years at least among the whites. The death rate from tuberculosis is about twice as great among the colored as among the white population, and has been less subject to control, but even in their case the diminution has been most marked, and seems to be progressive.

These results have been reached by treating tuberculosis as a contagious disease. It has become the custom to isolate patients, as much as possible, and treat them at a hospital instead of ~~at~~ ^{at} their own homes, as it has been found very difficult, especially when ignorant people are concerned to secure the necessary sanitary conditions which are so easily provided in a hospital.

1910

Feb 4

Friday

at Tenn. Ochs

The reduction in the death rate has been secured not so much by the cure of infected persons as by preventing them from becoming sources of infection to others. ^{Gen.} Dr. Sternberg stated that the death rate from tuberculosis has diminished very greatly during recent years in all civilized countries, and that Washington shows a good record in this respect among cities. Baltimore our next door neighbor has a much higher death rate from tuberculosis. Boston leads the country in this respect; the death rate from this disease having been reduced to about 50% of what it was a few years ago. Mass. also takes the lead in the matter of vital statistics. Gen. Sternberg stated that Dr. Kober who was present had graphical charts in his possession showing the decrease in the death from tuberculosis in a great many cities and if he had known that Dr. Kober intended to be present on this occasion he would have asked him to bring the charts with him.

Mr. Newell spoke of the Reclamation Service with which he is connected. He announced the completion of the highest dam in the world last Sunday (Jan 30) a few miles outside of Yellowstone Park. The dam was completely made of concrete and was 328 ft high.

The British Ambassador seemed to be much interested in Mr. Newell's remarks and asked him many questions, and also made a short address.

There was a good deal of discussion upon the subject of tuberculosis and Prof. Raymond noticing the great difference in susceptibility to this disease between the white and colored races asked whether mulattoes were also susceptible. Dr. Kober thought that they were, and spoke of the mixed population in the United States.

1900

Feb 4

Friday

at the Club 67

resulting from immigration. A mixture of nationalities of the same general type was eminently favorable to good health and general robustness of constitution, but the mixture of distinct races as in the case of mulatto's and half-breed Indians showed deterioration of physique; he thought the question of restricting immigration to those races, which mingled beneficially with our people was a most important one. The modern American formed by the blending of nationalities rather than races was the best type of man that had yet appeared upon earth.

Mr. Putnam gave an account of his visit to the Philippine Islands where he had spent six years in the service of the Coast Survey.

Dr. Bell, on behalf of Mrs. Fairchild, who was unable to be present announced that Mr. Fairchild had furnished for the evening another new food product which had been introduced into the United States from Spain. This was a species of grass ^{or rather sedge} known as chufa which bore nodules on its roots like nuts, but of a soft consistency. From these nodules a milky liquid was expressed ~~of having~~ of a sweetish character and having a nutty flavor. It formed an admirable basis for ice cream. The ice cream served had no milk or cream in it but was composed exclusively of the juice of the chufa plant diluted with water. Supper was then served and the meeting adjourned. A. B. B.

Feb 4: Last night (Feb 3) Dr. Bell gave a lecture upon the early history of the telephone before a society composed of men employed in the telephone business. He gave reminiscences of his childhood and continued his account of the development of the telephone up to the Centennial Exhibition at Philadelphia in 1876, and the speech of Sir William Thompson (the late Lord Kelvin), at the British Association for the Advancement of Science in England that same year. About 200 persons were present. A. B. B.

Feb 4: I received last night (Feb 3) a note from Mr. Israel Sudlow dated February 2, inclosing a copy of an application for a patent which Mr. Sudlow had filed, for an invention having as its object "the preserving of the lateral equilibrium of an aeroplane" to be used in the place of the usual side controls.

So far as I can judge from the specification the invention appears to be similar, if not identical, ~~for~~ to my own invention for which I have asked Messrs. Mann, Cameron, Lewis, & Massie to prepare an application, viz:—the central balancing-rudder to be placed above the main supporting surfaces. A vertical rudder centrally arranged. This places me in an embarrassing position. I shall go down this afternoon to see Mr. Cameron about the matter. A.B.B.

1910 Feb. 5 - Sat - at 2400

METEORITES RUIN CROPS

Rain of Red-Hot Stones Falls Near
Florence, Italy.

Giant Meteor Explodes Near Quincy, Ill.,
Causing Buildings to Tremble.
Fireballs From a Comet.

Washington Post Feb. 5 1910

Special Cable to The Washington Post.

Rome, Feb. 4.—According to reports from Florence, a rain of meteorites fell thereabouts last night, especially at Vaglia and San Pietro. The stones were of the size and shape of hazelnuts. When they reached the ground they were red hot, and the crops were ruined. At midnight a comet with a long tail of unusual brilliancy was visible.

The meteorites were gathered by handfuls today by peasants, who are impressed by the phenomenon. They fear disasters are portended, and consequently they are crowding the churches to invoke help from heaven.

Quincy, Ill., Feb. 4.—Something, supposed to have been a meteor, struck near here at 1:30 this morning, aroused the whole city, and caused buildings to tremble. Those about the streets saw a great glare in the sky. Several said they saw the meteor explode. There was an appalling detonation, followed a few seconds later by a trembling of the earth, which lasted five or ten seconds.

Chicago, Feb. 4.—Father McHugh, professor of astronomy at Depauw University, said that details of the Quincy explosion tended to confirm his theory that this meteor and the one recently reported from Connecticut are fireballs that became detached from Comet A when it passed through the solar system and have been traveling toward the earth ever since. Comet A's balance of gravity probably became disturbed as it came close to the rival pulls of gravity from the various bodies in the solar system, and it began to disintegrate, according to Father McHugh's theory. This caused the splitting and diminishing of the tail noted by various astronomers, and several fragments got into the sphere of the earth's attraction.

1910

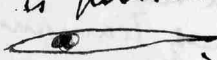

Feb. 7

Monday — at Levin's Office.

Feb. 7: Mr. Cameron telephoned me this afternoon, that he thought I had made a mistake in writing to Mr. Ludlow, before I had filed an application for the Central balancing rudder. ~~He says~~ he says, that Ludlow's letter ~~does~~ not state, he says, a copy, which he had ~~sent~~ actually filed. ~~the~~ application he forwarded to me, and ~~now~~ Mr. Cameron does not think it has been filed. Of course the moment I hear from me that I have made a similar invention he will file his application for a patent.

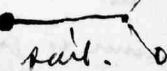
Mr. Cameron is now at work upon my application and will try to have it filed tomorrow so that the evidence of invention to practice may be in the Patent Office as soon as possible.

It may be that I am transferring Ludlow's invention in the light of my own ideas. It may be possible that the two inventions are not exactly alike, for he forwarded no drawings with his specification; so I cannot get ^{exactly} identify his idea as my own. I notice also that he speaks of the co-operation of the rudder ~~under~~ at the rear, from which it seems possible that he has not reached the conception of a neutral position where the balancing action will be produced without a turn.

If rudder is pivoted at, or about, the center of pressure  instead of  the center of pressure will not move to one side or the other when the rudder is turned — but will remain constantly above the central line of the machine — the longitudinal axis — and not induce a turn. Two forms should be shown — the rudder form and the sail.



and



This rudder should be the preferred form.

1910

Feb 7

Monday

at Twin Oaks

The experiments of Langley, have proved a stimulus and encouragement to others — and have not directly, to the present state of the art. He laid the foundations of the Science & Art of Aerodromics.

Z

1910

Feb 8

Tuesday

at Twin Oaks

Yesterday (Feb 7) Master Sandy Fairchild was heard crying in great distress. He had found a cup containing some red pepper and he tried to blow the red pepper up into the air. He only succeeded in blowing it into his eyes. Fortunately no damage done and poor little Sandy declares that he will never touch red pepper any more. A.C.B.

Last night (Feb 7) felt that we all needed a shaking up. David Fairchild had been in bed for some days passed with sub-normal temperature and Mrs. Fairchild, and Mrs. Bell and I had been feeling blue so we all went out after dinner to see a moving picture show. In fact we visited three of them with beneficial results. A.C.B.

Z

1910

Feb 9

Wednesday

at Twin Oaks

Feb 9: Yesterday (Feb 8) called at Mauro, Cameron, Lewis & Mason, signed the specification for central-balancing rudder and it was filed in the patent office same afternoon (Feb 8) A.C.B.

attended meeting of Board of Managers of Nat. Geog. Society, yesterday afternoon (Feb 8) at 4:45 P.M. to consider Perry's proposition about South Polar exploration. Considerable discussion developed comparatively few of the members cared anything about the Polar part of the expedition, but all wanted to promote exploration of Coastland, and to have tidal observations made. Admiral Collingwood offered a series of three resolutions No. 1. pointing out the great importance to science of tidal magnetic and

meteorological observations made in the vicinity of Cataland simultaneously with similar observations made by the British expedition on the other side of the Antarctic area.

The third resolution expressed the readiness of the Society to accept Mr. Peary's proposition if it had these objects in view providing that the project should receive sufficient financial assistance to warrant the undertaking. These resolutions were adopted by the Board.

The second resolution, which was withdrawn and not voted upon read as follows:-

"It is therefore resolved, that the Society, through its Board of Managers, endorses the plan for an Antarctic expedition submitted by civil Engineer Robert E. Peary, U.S.N., except in so far as the plan proposes to make an attempt to reach the South Pole".

Admiral Pillsbury proposed to drop the Polar feature altogether, and although quite a number of members of the Board were not in favor of the Polar feature, it was decided that there was no hope of obtaining the financial assistance desired from the general public without it, nor to obtain from the Peary Arctic Club the use of the steamer "Roosevelt" and its equipment of men and material.

We could not hope to obtain the scientific objects desired without the money; and we could not hope to obtain the money without the Pole. It was therefore determined to endorse Peary's plans, but say nothing in our resolutions about the Pole simply emphasizing the scientific objects desired by the Society. Resolution number 2 was therefore dropped.

1910

Feb 9

Wednesday

at Twin Oaks.

The whole matter was ^{then} referred to the Finance Committee to ascertain whether the members of the Society and the public generally would contribute a sufficient special fund to make the expedition to be sent. The resolution adopted met with unanimous consent. A.C.B.

Cox's Telephone address West 368 Parkside
apartment 1112-25th Street.

1910

Feb. 11

Friday

at Twin Oaks

Items to be expensed: -

Feb. 9: Wednesday, evening, meeting; and Night Conference with Cameron over my Smithsonian Address. Type-writing, The Address. etc

Feb. 10: - Presentation of the Rayley Medal to the Wright Bros at the Smithsonian Institution. ~~W. Burchard (?)~~ ^{Willard} W. Burchard (?). Lunch at the New Willard. - Dinner here. W. Burchard (?).

Feb. 11: Type-writing, the Address - to whom sent. W. ^{Willard} Burchard (?) at lunch. J. Williams of Edinburgh.

~~1 kg per~~

1 kg per 24 ft = 798 g per m²

45.4
4 1362
340.5

45.4
340
794

798
2
1596 g

Feb. 11: W. Rogers is to dine here tonight. X

1 lb per 24 ft - say 500 g per m²
2 lbs per 24 ft - say 1600 g per m²
3 lbs per 24 ft - say 2400 g per m²
Average 24 181600 g
Mean 24 90800

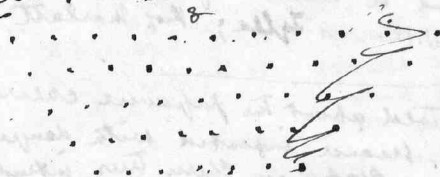
24 1600 g per m²

300 kg at 1 kg per m² = 300 m². 2 x 2 kg = 150 m²

Surface.

272,400

kg 300 kg.

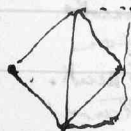


4 m side = 1 m² horiz.

2 winged cells each 1 m side = 1 m² horiz.

300 m² horiz = 600 winged cells each 1 m side

8 x 1 8
7 x 2 14
6 x 3 18
5 x 4 20
60



Feb. 12 - Woodley Inn (around 3.30 a.m.)

Wednesday Evening Meeting Feb. 9 1910

Feb. 12: Wed. evening reception, the last of the season, was held at 1331 Conn. Ave. - Feb. 9. A large and distinguished company present. Few I cannot recall all the names. 45 persons were present if I recollect rightly, including W. G. Groveson, and Mr. Fremont Smith. The following gentlemen were present: -

J. C. Hart Merriam, Head of the Biological Survey; Gen. John M. Wilson; Chas. H. Cox; J. Aaronson of ^{St. Louis} ~~Danvers~~; W. Stratton, Head of the Bureau of Standards; W. Otis Smith, Director of the Geological Survey; W. Gilbert H. Groveson; Admiral Pillsbury; Prof. Jameson, ^{Sec. of the Carnegie Institution} W. Littenman, ~~Head~~ Director of the Coast and Geodetic Survey; W. King, astronomer, from the Observatory, Ottawa, one of the Boundary Commissioners; W. Newell, of the Engraving & Pictorial Service; J. Arthur L. Day, of the Carnegie Geo-physical Laboratory; W. Parker, of the Geological Survey; W. C. J. Reel, President of the American Security & Trust Co.; Prof. Zahn, ~~Pres~~ of the Catholic University, Sec. of the Aero Club of Washington; W. Christison, Head of the Esperanto movement in Washington; Prof. Coville, Botanist of the Dept. of Agric.; J. Dall, of the National Museum; W. F. W. Booth, Editor of Assoc. Review; J. David J. Day, of the Geological Survey; W. Barton, of the Geological Survey; W. Bailey Willis, of the Geological Survey; J. Irving; W. Wadsworth; the Swedish Minister; a gentleman from the Swedish Legation (name unknown); W. Bennett, a member of the House of Representatives; The British Ambassador (W. Bryce); Gen. Allen, Chief Signal Officer U.S.A.; Major Spier, U.S.A.; W. Macfarland, ~~also former~~ Commissioner of the District of Columbia; J. Fremont Smith; and a number of others whose names I fail to remember. W. Richmond Tyler; Prof. Marlatt, Entomologist; W. Cameron;

Speakers: Prof. Marlatt, told about the Japanese cherry trees, which had been destroyed because infested with dangerous insects & grass. There were 2000 Japanese cherry trees, intended for Potomac Park. Another consignment will probably be sent. Prof. Coville; W. Otis Smith; W. Littenman; W. King of Ottawa; Gen. John M. Wilson gave some anecdotes; J. Arthur L. Day; W. Stratton; W. Bennett, showed photographs of the bodies of the dead in Prussia (or the East) after a massacre photos too horrible to be published. He also spoke of the massacre.

1910 Feb. 12

Lent

at Lavin Oaks. 75

The British Ambassador (W. Grey) made a charming address; the Swedish Minister spoke of the operation for appendicitis, recently performed on the King of Sweden, and gave an encouraging report on the condition of the King.

There were several other speakers but it is impracticable to report their addresses or names now.

Gen. Allen spoke of a meeting of the Aviation Committee next door at W.C.J. Bell's to consider questions concerning the International Aviation meet proposed to be held in Washington. Considerable doubt was felt as to whether the meet could be held in America on account of the attitude of the Wright Brothers. Foreign aviators objected to attend if they were to be subjected to infringement suits from the Wright Bros.

During the course of the evening two newspapers were appeared and were about to enter the room, when I told them that while we would be glad to see them, we could not receive them as newspaper men. No newspaper men were admitted to our Wednesday evening meeting. They said they had been sent to report proceedings for the Washington paper - and had been invited. I said there was surely some mistake - newspaper men were often invited, but they came, not as newspaper men, but as invited guests who would not report the proceedings. I then found out that they thought this was a meeting of the Aviation Committee. ~~So~~ I told them they had come to the wrong house. There were two W. Bells and the Aviation Committee was meeting next door, at W. Charles Bell's house. They thanked me, and vanished. X

Feb. 12: W. Carson, of Mass., Camm, Lewis & Massie, attended my Wednesday evening meeting Feb. 9, and stayed after the meeting had closed to advise me concerning my address at Smithsonian Institution. I read the portions relating to the Wright Brothers and he advised me to modify the language. ~~as to my address~~ I adopted his suggestions. ~~W.C. Carson~~ I stayed all night at the Connecticut Avenue House, and W. Carson stayed until nearly 3 a.m. (Feb. 10) ~~so~~ as to get my address in type-written form. I determined to read the address rather than speak it, so that no question could possibly arise in the future as to what I did, or did not say upon the occasion. X

Gen. Wilson
expressed interest
of the meeting
Monday.

1910 Feb. 12

Sat

at Twin Oaks

Feb. 12: Mr. Hoyer from Norwich, Conn. was here last night (Feb. 11) and stayed all night.

Feb. 12: Mr. Cook remained here only a few minutes today. He was anxious to go home to his wife as she is expecting a visit from the Stork.

Feb. 12: Barbara Fairchild has had an attack of bronchitis with fever (temp 103°). Trained nurse attended her Thursday night (Feb. 10) & last night (Feb. 11). She is just as bright and ~~is~~ smiling as ever so there surely can't be much the matter with the baby. She looks pale and thin though. → Sandy too has quite a cold.

I hardly wonder at it, for he manages to wriggle half out of his night clothes nearly every night, and lies with some portion of his body exposed to the air of a cold room. It all results from efforts to prevent him from sucking his thumb, combined with the desire that he should sleep out-of-doors as much as possible. The nearest approach to out-of-doors we can get here results from opening the windows of the bed-room. This produces good, cool air for ~~breathing the lungs~~ (indeed, now it is winter cold, even freezing air) in the room. While this cold air is good for the lungs, it is by no means good for the child if it strikes his little naked body while he is asleep.

There has been a struggle to cure him of the habit of sucking his thumb. His hands are tied ~~up~~ ^{up} The sleeves of his night-dress were sewn up so that he could not get his hands out, and the night-dress ^{was} sewn up elsewhere to keep it in place. ~~and yet~~ Result: He would somehow wriggle out of his night-shirt during the night and be found early in the morning with his thumb in his mouth, and half his body (sometimes all) exposed to the cold air. I did not often see him in the early morning, but every time, he was lying, half-naked, exposed to the cold air. As nobody seemed to be specially concerned about the matter I thought it best to make a row about it, with the result that Daisy began to

Private
not for Recorder.

about Sandy

1910 Feb. 12

Lat

at Levin Oaks. 77

consider the question of how to keep his little body covered at night. She is determined on two points - he shall not suck his thumb, and he must have cold outside air to breathe. ~~and~~ he is determined to suck his thumb even if he has to wriggle out of his night-clothes ~~to do it~~ or tear them, to accomplish his object. Unfortunately these attempts are made when no one is with him, so he lies, practically naked half the night - and I cannot understand why his nurse, who takes him up every morning and must therefore know his ~~naked~~ half-naked condition, does not realize the danger to the child's health of sleeping in a cold room with his body exposed in this manner, and tell his mother. ~~and~~ I do not see him every morning, but every morning I see him I find him exposed. Seeing him at intervals in this way and always in the same condition, I naturally conclude that it is the usual condition, and that ^{habitually} ~~neglected~~ ^{neglected} connected with the child's health can be ^{habitually} neglected by those about him. It seems to me that it is our duty either to keep the child in a reasonably warm room, or take special precautions to keep his body ~~warm~~ & covered if he is kept in a cold room in the winter-time. (the cold room is better if his body is kept warm)

Since I made my first vigorous protest several changes have been made in the character of his night things but no one, excepting myself, seems to be much concerned as to the results of the changes - At least no one seems to know that his body is still exposed in spite of the changes - and yet every time I examine him in the early morning (which is only at intervals) I find some part of his body exposed.

He was put into pajamas & a sort of jacket. Present - entirely open in the middle with the cold air playing on his abdomen ~~on~~ on ~~back~~ and his thumb in his mouth! A ~~sort of~~ waist-band "cholera band" was put on but in his wriggling to get that blessed thumb into his mouth and take his arm out of the sleeve of his night-dress - the waist-band was displaced and he ^{was} as naked as ever about the waist. I cannot help feeling that we have here the cause of the cold from which he recently suffered that led to the formation of an ~~abscess~~ abscess in our ear. This was while I was in New York.

1910

Feb. 12

Sat

at Twin Oaks

Since my return I have noticed changes in his night things showing that attention has been paid to the matter ~~but~~ (for example - the pajamas sewn to the jacket, or attached to it in some way to prevent exposure at the waist) — but I doubt whether any examination is made in the early morning to see whether ~~whether~~ what the results of the changes may have been. The nurse must know surely but does she report his ~~night~~ condition to his mother.

His crib is in my bed-room but I do not often see him in the morning, as his nurse comes in and removes him from his bed before I am awake as a rule.

At intervals I see him and his body is always exposed.

He has quite a bad cold now, and I was awakened ^{this morning} by his barking cough. & then he was lying with his night dress open in front ~~from~~ ~~not~~ exposing his neck and chest to air about the freezing point or lower — and barking away ^{like a dog}.

I suppose no one will notice the dangerous condition until too late if I do not make another row.

I feel so much disturbed about it ~~because~~ that I am afraid to allow myself to speak for fear of saying too much. I shall simply therefore ask David & Daisy to read these notes, and I shall simply say that it seems to me that we are trifling with that dear child's health for the sake of fads. (The thumb-sucking fad, & the open-air fad). Give up one or both of them and the danger to health disappears.

1. Let him suck his thumb if he wants to and he will not try to wriggle out of his clothes.
2. Give him a warm room ^{to sleep in} ~~and~~ and he will not catch cold even if exposed.

The attempt to ~~prevent~~ provide him with the burlesque-proof clothing does not seem to be successful — he is too intelligent and will probably break out of anything to attain his aim.

My plan would be to let him suck his thumb if he wants to and gradually laugh him out of it as he grows older. The cold room is a good thing in itself but might lead him to have pneumonia if his body is exposed. X

1910

Feb. 12

Sat

at Levin Oaks

79

Feb. 12: A telephone message from Coa about Legate time announces the arrival of the shark with a ten pound baby girl.

Feb. 12: From Evening Star. Charcot finds new land in the Antarctic. Details of fire at Woodley Lane. Pilot Hunt & Weather Bureau. — Kairuli poisoned —

1910

Feb. 13

Sunday

at Levin Oaks

Feb. 13: Two young ladies, daughters of Sir Lawrence Jones arrived here yesterday (Feb. 12), and are staying at Levin Oaks. X

Feb. 13: R. & Mrs. Bell dined yesterday (Feb. 12) with W. & Mrs. Grosvenor — to meet Mr. Rogers of Norwich, Conn. and discuss with him plans for the improvement of the Association Review. *Proposals* names considered for the Review: — Illustrated Information, The Brain Drop, Volta Magazine, The busy bee, Monthly News, etc.



1 m winged cells — long proj. = 0.5 m^2
2 winged cells $\text{sq. m. side} = 1 \text{ m}^2 \text{ horiz.}$

400 400
400
1000 lbs
450 Kg.
2500 Kg.
at 1.5 Kg per lb

A land of 500 Kg at 10 Kg per sq. m requires 50 sq. m or 100 winged cells being side of 1 m
... 100 sq. m or 200 winged cells being side of 1 m.



1	10	10
2	9	18
3	8	24
4	7	28
5	6	30
		110

Feb. 13: Visitors at Levin Oaks this afternoon. Gracie Bell with a troop of young men in attendance who had been out on a paper-hunt. Don't pretend to know their names but Major Lymer was among them. W. & Mrs. Walcott and a son (a mere lad); Dr. David T. Day & his son Elliot Day; W. & Mrs. Charles Marsh (who stayed to supper); & I think others called. The two daughters of Sir Lawrence Jones are also here. X

400 260 650
650

50
9
200 Kg cells
200 Kg content
100 Kg body
500 Kg

1910 Feb. 13

Sunday

at Linn Oakes

81

Then when the temperature of the earth was such as to permit of the union of hydrogen and oxygen in the gaseous envelope we would have steam in the atmosphere — that is water-vapor. This steam acting upon the carbide, crust would penetrate & dissolve the more soluble carbides and ~~hydro~~ hydros-carbons would be formed by the oxidation of the carbides — The oxygen uniting with the metallic base, and the carbon uniting with the hydrogen of the water, ~~the spoke especially of~~ Thus hydros-carbons would be formed on a great scale. If I understood him correctly the action of water-vapor upon carbide of iron at high temperatures would produce oxide of iron on one hand and petroleum on the other. I may be wrong here for he spoke of ammonia vapor — and referred to a recent discovery that the visible vapor rising from the crater of Vesuvius was composed, largely of ammonia vapor instead of steam. He stated that steel wire contained carbon in combination with iron and that he had found that by submitting steel wire to the action of water-vapor at a high temperature (it may have been ammonia-vapor perhaps). ~~that~~ petroleum had been formed artificially. The characteristic smell of petroleum had been perceived.

J. Kay stated the geological evidences of a Carbide crust were not strong for on following downwards metallic veins we did not come (at least in many cases) upon carbides but on combinations with sulphur sulphides or sulphates, but these may have been substituting products — the sulphur replacing the carbon. Then the action of water ~~vapor~~ (or ammonia vapor) upon a sulphide in the presence of a carbon compound would produce petroleum. I am mixed up here, but I understand that ~~this~~ this is his important discovery. Not having clearly in mind the chemical constitution of the various substances named I only get vague ideas.

As the matter lies vaguely in my mind we have three compounds brought closely together (1) a metallic sulphide or selenide (2) a carbon compound, and (3) water ~~vapor~~ (or ammonia vapor) — decidedly mixed up about this for I have the impression that ammonia is itself a hydros-carbon compound so I will stick to water-vapor).

(This is all private)

1910

Feb. 13

Sunday, — at Twin Oaks

I can't follow it all, but will give a case as it appears to my mind.
Original Compounds: 1. Iron in combination with sulphur (a sulphide, sulphuret, or sulphate) 2. A carbon compound say Carbonate of lime and 3 - water

Results: 1. Oxide of iron (the sulphur replacing the carbon in the carbon compound, and taking oxygen from the water) 2. Sulphate of lime, or gypsum (the sulphur taken from the iron replacing the carbon, & the carbonate of lime & converting it into gypsum). 3. Petroleum (the oxygen & the water combining with the iron - releasing the sulphur. The sulphur combining with the lime releasing the carbon. The carbon combining with the hydrogen of the water).

I gain the idea that there are ^{chemical} reactions between three associated compound substances. ~~that~~ A metal combined with sulphur, a carbon compound, and water (it may be ammonia). Metal is oxidized from the water, & passes with its sulphur to the carbon compound which therefore becomes a sulphur compound ~~and~~ releasing the carbon which combines with the hydrogen of the water to make a hydro-carbon (petroleum) releasing the oxygen which goes to the metal thus oxidizing it. A triple reaction.

I have in mind a concrete example of a sulphur compound of iron, in presence of limestone. Then comes water. ~~then comes water.~~ Result. Oxide of iron, gypsum, & petroleum.

He also spoke of similar actions involving Sodium — resulting in Chloride of sodium (common salt) as a by product of a triple reaction producing petroleum.

In proof of his theory he spoke of gypsum and salt water as associated with petroleum deposits. Also connection of petroleum deposits with the carbonaceous coal measures, & with limestone, and with iron.

He spoke of super-posing a volcanic map showing the known petroleum deposits, a magnetic map showing the ~~local~~ deviation of the magnetic needle from the normal, and finding that the petroleum was found in regions of marked magnetic deviation indicating the presence of iron deposits in the petroleum regions. app

This is
 all possible

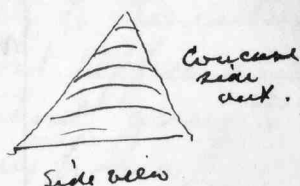
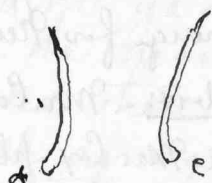
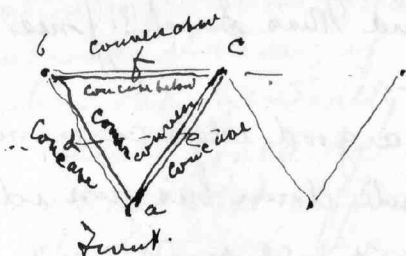
State my own
 theory as my conception
 of Mr. Day's ideas

1910

Feb. 13

Sunday

at Lenin Oaks, 83



Make cells with concave-convex surfaces with the lower surfaces of the horizontals or oblique ~~surfaces~~ concave the upper surfaces convex.

Or taking pure tetrahedral construction - lower surfaces & oblique concave from front to rear upper surfaces convex from front to rear - ~~9~~ ~~10~~ ~~11~~ ~~12~~ ~~13~~ ~~14~~ ~~15~~ ~~16~~ ~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~ ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~ ~~32~~ ~~33~~ ~~34~~ ~~35~~ ~~36~~ ~~37~~ ~~38~~ ~~39~~ ~~40~~ ~~41~~ ~~42~~ ~~43~~ ~~44~~ ~~45~~ ~~46~~ ~~47~~ ~~48~~ ~~49~~ ~~50~~ ~~51~~ ~~52~~ ~~53~~ ~~54~~ ~~55~~ ~~56~~ ~~57~~ ~~58~~ ~~59~~ ~~60~~ ~~61~~ ~~62~~ ~~63~~ ~~64~~ ~~65~~ ~~66~~ ~~67~~ ~~68~~ ~~69~~ ~~70~~ ~~71~~ ~~72~~ ~~73~~ ~~74~~ ~~75~~ ~~76~~ ~~77~~ ~~78~~ ~~79~~ ~~80~~ ~~81~~ ~~82~~ ~~83~~ ~~84~~ ~~85~~ ~~86~~ ~~87~~ ~~88~~ ~~89~~ ~~90~~ ~~91~~ ~~92~~ ~~93~~ ~~94~~ ~~95~~ ~~96~~ ~~97~~ ~~98~~ ~~99~~ ~~100~~ ~~101~~ ~~102~~ ~~103~~ ~~104~~ ~~105~~ ~~106~~ ~~107~~ ~~108~~ ~~109~~ ~~110~~ ~~111~~ ~~112~~ ~~113~~ ~~114~~ ~~115~~ ~~116~~ ~~117~~ ~~118~~ ~~119~~ ~~120~~ ~~121~~ ~~122~~ ~~123~~ ~~124~~ ~~125~~ ~~126~~ ~~127~~ 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1910

Feb 14

Monday

at Twin Oaks

Hester?

Miss Estlin Jones and Miss Sarah(?) Jones left this morning for New York.

Feb 14: - Mr. Cox has a good idea concerning —
Will Mr. Cox please write down his own idea.

Not for
Recorder.

The delivery of the United States Mail to the Head office of the different cities of the United States does not appear to me to be as prompt as it could be with the methods of transportation we now have at hand in these cities.

Mail going to the different cities of the United States and to Foreign countries could be sent much ~~quicker~~ more quickly than they are now sent.

I have fifteen letters in my pocket leaving Twin Oaks most of them going to New York and Boston. I now go to the Terminal Town road and deposit them in the mail box and then take a car for the city. These letters are perhaps left in that box for one or two hours ~~until~~ before being collected and then they have to be carried perhaps another hour or two before the mailman gets them to the sub. Post Office in Georgetown where they are again held for one or two hours before they are taken to the main Post Office to be sent out of the city.

Why not fit every car in all of our cities with mail boxes one box for local mail and one box for foreign mail (this foreign mail means mail out of the city to other cities or countries)

1910

Feb. 14

Monday

at Levin Oaks

85

Then put one big branch Post Office in every railroad Station. A Great many of these cars go direct to the railroad station; if they do not go directly to the railroad station they generally go by the main Post Office and the mail could be deposited there without going to the local Post Office at all saving many hours.

The Government could pay these railroad companies for carrying the mail so that if there would be practically a mail box on every street corner where there was a car track. People could put up their hand for the motorman to stop just as if they were going to get on the car and deposit their mail in the box from the outside of the car. This would not take as long a time as it would take to take on and let off passengers. People riding home at night from Office could deposit all their important foreign mail right in the car they take for home, and by this method the mail is never "dead" but is always on the go. I will work up the idea better later on. C.R.C.

1910 Feb. 15:

Tuesday

at Levin Oaks.

Feb. 15: Daisy's birthday (Mrs. David G. Fairchild)

Feb. 15: Yesterday afternoon Feb. 14 called upon Ex Senator Henderson, Chairman of the Executive Committee of the Board of Regents of the Smithsonian Institution and discussed with him important matters relating to the Smithsonian Institution which had been submitted to us by Secretary Walcott. I walked a greater part of the way home, calling en route upon Miss May and Louisa Symonds. I told them the latest developments in the de Friesnac matter. A letter has been received by Mrs. Pillot signed Herbert de Friesnac announcing his approaching departure from Italy for America. The family seem to unite in the belief that Mr.

de Hésensac and his sister the Marquise are one and the same person. If then the Marquise remains behind in Italy with her husband Mr. de Hésensac will not appear in America, we are wondering whether the proposed visit of Mr. Herbert de Hésensac to this country is to be made, a convenient excuse for his disappearance from the world, and whether we will receive letters from the Marquise asking information about her brother and fearing that he has fallen overboard and been drowned. Some of the family are inclined to think that Mr. Herbert de Hésensac is a woman; others that the Marquise is a man but all unite in the belief that the two are one and the same individual.

after walking the greater portion of the distance from Senator Henderson's house to Twin Oaks, I reached home about seven o'clock, P.M. quite exhausted, only to find that I was due at a dinner party at Mr. Charles J. Bell's in town, - an engagement I had quite forgotten. I telephoned my excuses and went in to Mr. C. J. Bell's house with Mrs. Bell, ^{after dinner} I found there a large gathering of gentlemen to meet Mr. Cortland Bishop, President of the Aero Club of America. The gentlemen consisted of delegations from the Aviation Committee of Washington and the Aviation Committee of Baltimore to confer with Mr. Bishop as to the place of meeting of the next International meet. Although the committees had secured guarantee funds amounting to \$100,000 should the meeting be held in Washington, I gathered from the objections raised by Mr. Bishop that there is very slight chance of the meeting being held here.

1910

Feb 15

Tuesday

at Wash. D.C.

The date of the meeting is fixed for October and I am very much inclined to believe that the meeting will not be a success if held here at that time for Congress will not be in session, nor will the diplomatic Corps be here.

I stated that an Aviation meeting held in Washington at a time when Congress would be in session could do much to convince Congress to make an appropriation for Aeronautical units in the Army and Navy, and that if this were done it would do much to promote the art of Aviation in America. The appearance here of expert foreign aviators would give Congress an idea how rapidly this subject is being developed in foreign countries, suggesting to them the advisability of seeing to it that America should not be left behind.

Feb 15: Last night (Feb 14) Mr. and Mrs. Gaunt, friends of Mr. David Fairchild arrived at Twin Falls. They left early this morning (Feb 15).

Feb 15: I wrote an important letter to Ex-Senator Henderson this morning upon matters concerning the Smithsonian Institution which had been submitted to the Executive Committee by Secretary Walcott.



1910 Feb 18 Hotel Lorraine N.Y. - Friday -
 date day place
 1910 Feb 18 Friday at Hotel Lorraine N.Y.

Feb 16.

Feb. 18: Left Washington Tuesday night (Feb 15)
 to riding the train with Mabel. Arrived at
 New York Wednesday morning (Feb 16). Took breakfast
 at Jersey City. Then Hotel Lorraine reached & then
 went to White Star Line Wharf where we
 saw Gipsy off for Genoa on the S. I. Cedric, with
 her husband Mr. Stuyvesant Pilett & her
 two children Rosalie aged five & Gertrude Mercer
 aged eighteen months. & two guides. Could not
 find the Misses Lawrence Jones although I
 hunted the ship through - but I left word of
 candy for them (as rule as Mr. Pilett). There
 were also present singing and Mr. Miss
 Pilett. Aunt of Mr. Pilett. Mr. Edward
 Gussmann Gipsy's uncle. Mr. Charles M.
 Marsh Mabel's aunt & her daughters Elizabeth
 & Mrs. Mrs. Julian Ripley. Mr. Mrs. Halland
 of Chicago with her two daughters were also
 on board being passengers.

We left them at 10.30 although the steamer
 was not to sail till 11. and Mabel did
 some shopping (bought some boots at Alessandro's)
 and I bought a chain with beads for her
 at Mars. Then we came back to the hotel &
 Mr. Glenn & Curtiss took lunch with us &
 afterwards went out with us. In the
 evening I went to the theatre & saw The
 Fortune Hunter - very good while Mrs.
 Caroline M. Cundy stand with Mabel.

1910 Feb 18 Friday at Hotel Lorraine
 Feb 17 Next day (Feb 17) we arose at 10.30 breakfasted
 at 12. The Mages went out presumably
 to ship while ^{The Cruise of the} "Superior" waited
 for Mr Curtis who said he was coming
 & of course didn't. At five o'clock I had
 my hair cut. Mabel had hers dressed. & then
 we had dinner & went to bed at 10.30. This
 Feb 18. morning ^{Feb 18} we arose at 7 A.M. had breakfast
 at 10. & now 10.30 I am reading the New York
 Herald. & we intend to leave for Springfield by
 the 2 P.M. train. ruled by N. Y. B.

(Above written by Mabel - but not at my dictation)

Tues Feb 15 - left Washington midnight train.

Wed. Feb. 16 - arrived NY - saw Mr & Mrs. Hillot off by SS. Cedric -
 Mr. Curtis took lunch with us at Hotel Lorraine - told him
 about central vertical balancing rudder & how Ludlow & I
 had filed application for it independently & our another
 Curtis much interested for said he. Capt Baldwin
 has also applied for a patent for the same
 thing. Had talk with Curtis about his
 affairs & relation to Fleming. Mr. Curtis
 accompanied us to the Hippodrome Machine factory
 where Mabel's boots were tight! -

Thurs. Feb 17 - at Hotel Lorraine - had breakfast about noon.
 Curtis telephoned he would call with his counsel
 in afternoon but failed to materialize. Had a
 telephonic talk with Ludlow who told me
 that Paulham had been enjoined. Told Ludlow
 that a third man had applied for pat. but
 did not mention Capt. Baldwin's name as it had been
 mentioned confidentially by Curtis.

1960 Feb 23

Wednesday

at B 12

A. G. B's Movements Continued

Friday Feb 18: - Mrs. Bell and I left New York for Springfield, Mass. Put up at "The Worthy" Hotel.

Saturday, Feb 19: - Mrs. Bell and I went to Northampton, Mass and called on Miss Yale at the Clarke School. Talked with her about the Hubbard Memorial building to be erected for the use of the Clarke School from the bequest of \$50,000 left by Mrs. Hubbard to the Clarke School.

Mrs. Bell and I hired a sleigh to drive to Amherst, Mass. to call on Prof. and Mrs. Georvenor. On account of the condition of the roads found we had not time so drove back to Northampton and caught the train for Springfield where we stayed all night at "The Worthy" Hotel.

Sunday, Feb 20: - Left Springfield about 1 p. m. for Boston, Mass where we stayed at the Parker House. Mrs. Bell drove to Cambridge and called upon Miss Mary Blatchford and Mr. Samuel Sudder. As I was not very well I remained at the Parker House.

~~Sunday~~
Monday, Feb 21: - Mrs. Bell and I left Boston for St. John, N. B. by the morning train. Reached St. John same night.

1910 Feb 23

Wed

at B.B. 91

and took night train from St. John W
Curo to

Tuesday, Feb 22: - Left Curo for Jona
by morning train. At Jona found
Mr. and Mrs. Baldwin, Douglas McCurdy
and Hardiner Hubbard waiting for us.
The steamer Bluebell took us from Jona
to Central wharf of Beers Blough. We
reached home in time for dinner.
a.s.B.

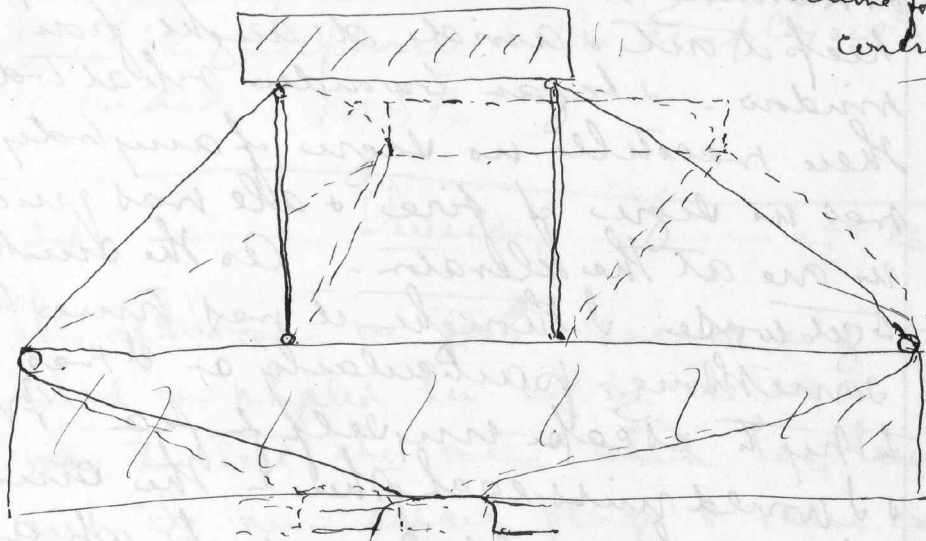
1910

Feb 23

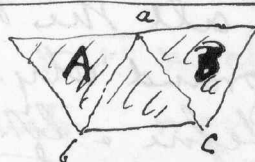
Monday

at B.B.

page



Scheme for lateral
control



Tail A moment axis a b
B " " " a c

1910 Feb 24 ——— Thursday ——— at B. B.

Feb 24; On Saturday night Feb 19. just as I was
 getting into bed in my room on the 6th or 7th floor
 of the Hotel Northern at Springfield, Mr Bell
 being there reading down stairs in the smoking
 corridor — I noticed the smell of smoke. Opening
 my door I found the corridor deserted but
 full of smoke — sufficiently so to make me
 think it well to be provided against emergencies
 so I dressed rapidly in my fur lined coat
 on my night dress — and slipped as my
 shoes stuck — snatched my watch & jewelry
 bag & hastened forth — By this time the smoke
 was so thick as to make seeing in ^{behind me} certain
 breathing ticklish — so I shut my door to
 keep it out & avoid draught from the open
 window — & began to wonder what to do as
 there was still no sign of anybody. There
 was no sign of fire & all was quiet — &
 no one at the elevator — As the smoke seemed
 to get worse I thought it was time to do
 something — particularly as I was afraid
 to try to escape myself for fear Mr Bell
 & I would miss each other in the smoke as
 of course he would come right up after me
 so I pounded on all the bed room doors
 & yelled fire in grand style — & it seemed
 quite an age before a lot of hotel people
 came rushing up the stairs & informed
 me the fire was over. Then a lot of chamber

1910 Feb. 24, ——— Thursday ——— at 1543, 93

maids appeared half dressed & nearly in hysterics. - Intimately there had been no one in the other bedrooms so I did not succeed in creating a nice little panic. - The fire had been on the third floor. where the waste paper barrel caught fire - but they put it out with extinguishers & no damage was done. - but the smoke was quite thick & they were all coughing badly. - Mr. Belle did not know of the fire till I told him & of course the smoke would not go down stairs. - I thought I had kept my wits pretty well till Mr. Belle quietly remarked - "they didn't get a call down the telephone to the employees?" - when I subbed. M & B

1910 Feb 24. ——— Thursday ——— at 1313

✓ This afternoon we took Boddick No 2. from the sled & whaled her out on the ice. - Our idea was to test the motor which has been fitted with the new spark plugs & valve cover. which arrived from Kitcham two days ago -

There was not much wind so that the draft on the radiator was practically nothing - Motor was run with open throttle for 5'-40" not missing fire once & apparently running well - water reached boiling point

1910

Feb. 24

Thursday

at B.H.

& much steam was coming out of the vents so water was shut off. —
 This test was most encouraging for in a former test of the same character at the Beech Farm, using the old spark plugs & valve covers — we were only able to run for 1'-45" (I think) when mis firing took place.

It seems that when machine is in the air that perfect cooling should take place for radiators will receive a 40 mile wind. So far this is the most encouraging test made & promises well. — James

Feb 23:

✓

Feb. 24: Last night (Feb. 23) the Social Aero Club of Beinn Bhreigh held a meeting here to celebrate the anniversary of the first flight of a heavier than air flying machine in Canada — the successful flight of Douglas McCurdy in the Albatross Silver Dart Feb. 23 1909 over the ice in Baddeck Bay. The Naval policies of Canada was discussed by Mr. Macfarlane, Mr. Baldwin and others. a/m

Feb. 24: Douglas McCurdy proposes to try a flight in the Albatross Baddeck N.S. tomorrow (Feb. 25) to test out the engines with its new spark plugs. a/m

1910 Feb 25

Friday

at B 1395

Feb 25:- The drone Baddeck No. 2 was taken out upon the ice on Baddeck Bay this morning. Mr. Baldwin is here and, as I was not present during the tests, I will ask him to dictate an account of what happened. app.

Mr. Baldwin says:- The machine was taken out and John ran her down towards the warehouse or about as far as the Laboratory wharf. Then turned round and came back towards the big shed putting her nicely into the air and flew for about 100 yards and began to turn to the left. The turn was a little too sharp, the inside wing touched; so John, after straightening her up, shut off the motor.

As there was a little wind blowing down over the hill from the East we decided to just run the machine along the ice.

John took her for a spin of about ten minutes. The water boiled a little but the engine showed no signs of over-heating. We decided to balance up the wing tips which were not adjusted. The angle came a little more on the side than the other & the gyke wasn't in the center. F.N.B.

1910 Feb 25

Friday

A.B.B.

Mr. Douglas McCurdy has just come in and so I shall ask him to give his own independent account of what has been going on this morning before he reads Mr. Baldwin's notes. A.B.B.

Mr. McCurdy says: - We took her up about 1/2 of the bridge wharf there and started down the shore towards the head of the Bay. Rose about 1/2 of the Silver Seal shed when immediately the machine spun around to the left and landed facing the other way.

We thought that this suddenly turning around might have been due to the little puff of East wind and also to the fact that the wing tips proved to be out of the normal position both having slightly a positive angle when the aviator moved to the high side - starboard - the port tip would offer a greater ^{lift} than the starboard tip & he decided not to try another flight until the wind went down. and so for sake of practice ran the machine around the Bay four times in about ten minutes. J.A.L. MacG

1910

Feb 25

Friday

at B.B. 97

I don't quite get from the remarks of either Baldwin or McCurdy a picture of what occurred. Perhaps the facts may be brought out by a cross-examination of the distinguished aviator McCurdy at B.B.

Cross-examination

Q. B. - You started by running Baddeck No. 2 on the ice, I understand, from?

McC. - Just off the Lodge wharf

Q. B. - And in which direction did you run her.

McC. - Towards the head of the Bay.

Q. B. - How far did you run before you attempted to rise.

McC. - Till about 75 the start shed.

Q. B. - Did she rise? If so how high did she go?

McC. - About five feet I should think

Q. B. - Now I understand she did not go straight but swung round to the left, is that right?

1910 Feb 26 — Friday — at B.

McC:- \$\$\$As. B:- did you try to correct this by steering with the vertical rudder?McC:- I started to make a turn to the left and tried to correct it after I started but the distance ^{from the ground} was too short.As. B:- I thought from your previous remarks that the machine swung round by itself from the action of the wind. I understand now that you initiated the turn. Is that right?McC:- That is correct.As. B:- What do you mean by the distance being too short from the ground?McC:- Does that mean that you did not succeed in making the turn and that one wing touched the ice or something of that sort?McC:- Well, I had just started the turn and when I started something came round faster than I anticipated. I don't know what it was, so that the port wing, which would depress on a turn to the left, touched the ice. I shut her off after she was straightened out. She ran about 20 ft. then I shut her off.

1920

Feb 25

Friday

at B.B. 99

Q.B.:- Any damage done?

M.C.:- Practically nothing.

Q.B.:- What do you mean by practically.

M.C.:- Well, ^{me} the spreaders between the
port tips broke in the middle but we repaired
that with a piece of tape and a splice.

Q.B.:- Have you any idea what
caused her to swing round more rapidly
than you intended?

M.C.:- Mostly lack of practice.

Q.B.:- How about the wind. What was its
direction, etc.?

M.C.:- There was a breath of wind from
the East which under ordinary circumstances
wouldn't have amounted to anything.

Q.B.:- Did you make any observations to
ascertain whether there was a down draft
since the ~~was~~ slight wind observed came from
the near shore?

M.C.:- No. There wasn't enough wind to turn
an anemometer I don't believe.

Q.B.:- I think it would be well to take
shore Redwin to make a smoke about the
place where you turned and see whether
the smoke goes up or down.

19/0 Feb 25 ——— Friday ——— A.V.B.B.

I understand that, after this turn had been made, you ran the machine around the Bay four times. I suppose you mean on the ice, not in the air.

McC: Yes.

A.V.B.B.: Did you have full engine power on?

McC: Only in spots.

A.V.B.B.: Did you attempt to rise?

McC: No.

A.V.B.B.: When running in spots at full power why did the machine not rise?

McC: The spots were too short. That he right off. Of course she picked up immediately. In fact in those spots the outside wheel was off the ground so shut her off.

A.V.B.B.: The point I want to get at is - did she show a tendency to rise which had to be resisted by a depression of the front control; or did she not give indications of lightening?

McC: She would have gone up every time the throttle was opened only when she did so shut her down.

A.V.B.B.: How about the front control?

McC: Didn't pay any particular attention to it.

1910 Feb 25

Friday

AVBB 101

avb:- Then you did not depress the front control to keep her down!

me:- We kept the front control moving most of the time just for the practice of it.

aers:- How was the engine working.

me:- Slowly.

Hint up references to Auroral seen in C. V. last year.

X Feb 25:- Have not been down to the Laboratory since arriving here as I have not been very well. Saw Mr. McDonald this morning and he thinks I will be all right in a few days. I understand that the ice on the Bay has hardly extended (so far) beyond the Central Wharf. A storm broke off some of this ice so that when we landed here (Feb 22) the steamer Blue Hill was able to land us at our own wharf.

Last night there was considerable frost and this morning a thin sheet of ice extends as far up St. Patrick's Channel as we can see and over the Little Bear d'Ar Lake pretty nearly up to the Grand Narrows under stand. The ice on the Bay is reported to be in good condition for aerodynamic work.

1910 Feb 25 — Friday — AT D.B.

Yesterday (Feb 24) a drone was taken out on the ice for the first time so I understand. No attempt was made at a flight but the engine was tested and seemed to give good satisfaction according to McCurdy's notes of the test.

This morning the first attempt at a flight was made as recorded by Baldwin and McCurdy.

The machine, Baddeck No. 2, is now being taken out on the ice for another trial and I am just starting out in hopes of witnessing the tests.
A.D.B.

Feb 25:— Have Baldwin make a smoke-producing apparatus that can be taken out on the ice to spot down-drafts.
A.D.B.

Feb 25:— At one of my Wednesday evening meetings in Washington Prof. Bauer, head of the Magnetic Survey, directed attention to a remarkable magnetic storm that had interrupted telegraphic communication all over the world. He was, at the time, in St. John's, Newfoundland, and was prevented, by the magnetic disturbance,

1960

Feb 25

Friday

at BB 103

from receiving a time signal from Greenwich Observatory, England. He had looked out for a display of Aurora borealis at that time but saw nothing at St. John's. He referred to me to know whether any Aurora had been observed in Cape Breton Island, and I was able to point out a record of such an observation made in Cape Breton Sept. 21, 1909 (see Recorder Vol. I p 315)

I also stated that another display occurred, about 25 days afterwards (just one rotation of the sun) but was unable to find any record of it in the Recorder. We will now see whether we can find the record (which was undoubtedly made) in my Home Notes.

Feb 25:- I find that an Aurora was observed here Oct. 18, 1909 (see Home Notes p 57). Will write a note to Prof. Bauer giving copies of my notes concerning the Auroras of Sept 21 and Oct. 18, 1909.

The omission of the record from the Recorder is evidently due to Mrs. Hubbard's death, which occurred Oct 20, 1909 and I left Ben Bruegh Oct 21. It is probable that other

1910 Feb 25

Friday

at B.B.

Items may have been omitted. a/fz

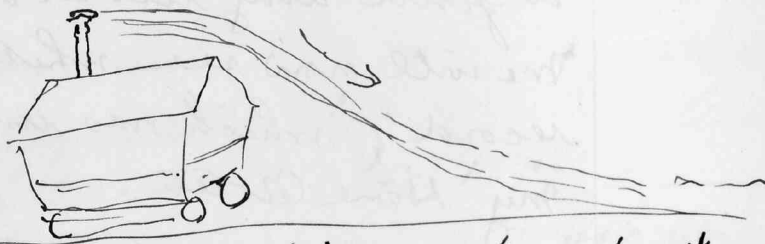
Feb. 25: (Evening). Went down to Lab. This afternoon to see what was going on. No attempts at flight were made.

Saw Gordon Hubbard's houseplant — no houseplant? Anyway "Mow-something" — Looks very promising and I am much pleased with it. The *Oidoceros* also looks as though it should fly. Buddick W1 & Kuddick W2 are hunters.

Did not see Eggert II. Visited the Ugly Leeching Houseboat.

Looks very comfortable. There was a fire in the stove. I had Mr. Kyrnes put some damp straw on to make a smoke and went out a little way on the ice to see how the smoke drifted with the slight easterly breeze. Wind blowing (E, ENE, or NE).

Smoke was warm & the air cold so the smoke blew down-hill.



No mistake about there being a down draught. a/fz

Findi Dictation about Woman Suffrage. also letter to David about Natural Selection, for Pilwoden. Came across them both in old scribbling books ("Home Notes") when searching for references to Beak and Wicket balancing-sidder.

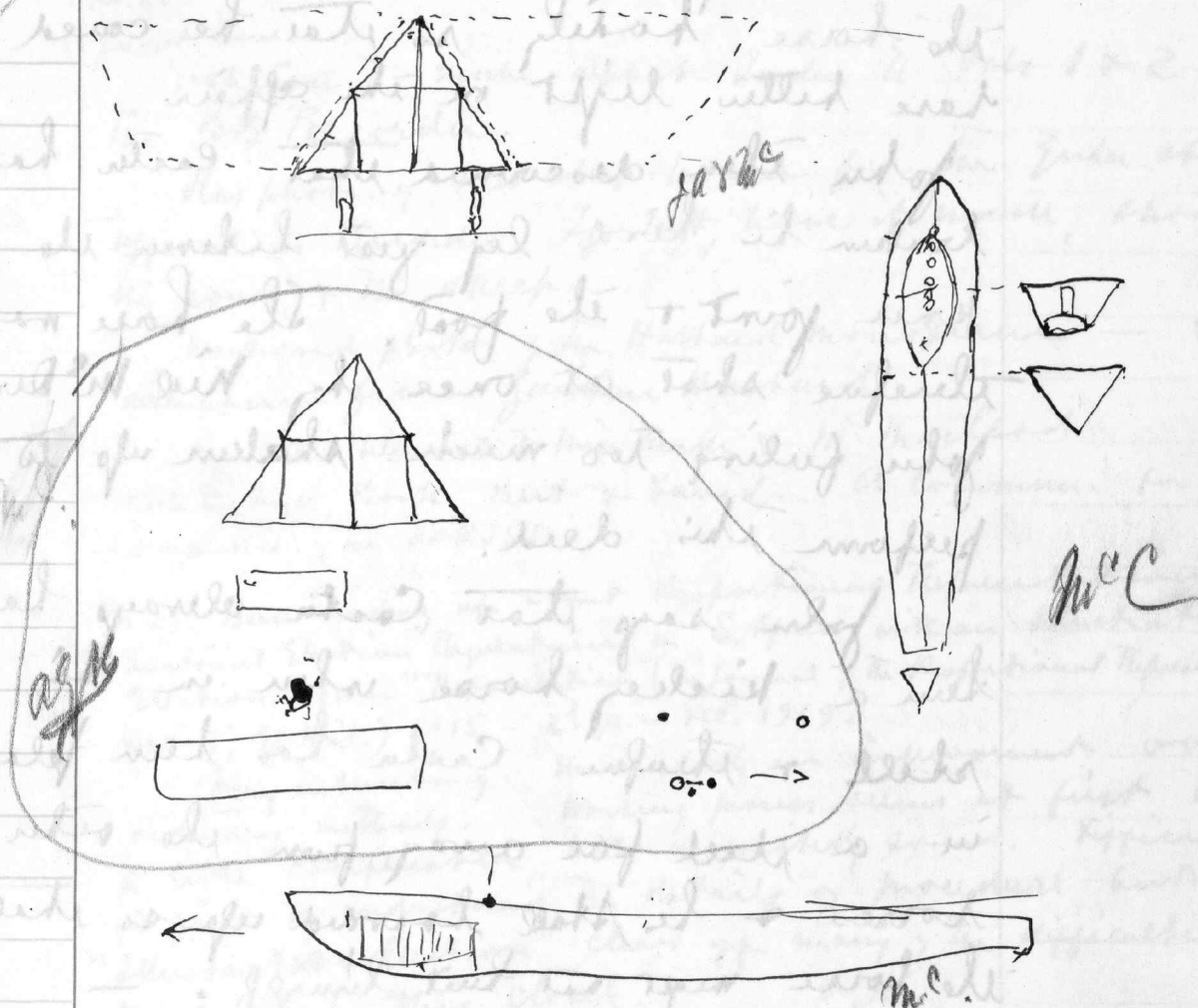
For women vote see Home notes May 30, 1909 p. 67.

1910 Feb 25

Tuesday

at K.B.

105



1910 Feb 26

Saturday

at B.B.

John Mc Dermis told me the following this morning:—
 When John Mc Dermis went out to the stable this morning he found the horse "Castor" lying down in his stall. He (John) tried to make him stand up but Castor refused. John first thought that the horse was ill or tired but after repeated attempts to induce him to rise upon his feet. John

1910

Feb. 26 —

Sat

at K.B.

removed part of the stall & moved the horse badly so that he could have better light on the affair.

John then discovered that Carter had broken his hind leg just between the knee joint & the foot. The horse was therefore shot at once by Will Mc'Dermid. John feeling too much shaken up to perform this deed.

John says that Carter always has been a kicky horse when in his stall & therefore Carter has been placed in a stall far away from the other horses & his stall boarded up so that the horse might not hurt himself. —

This accident John thinks must have been caused ^{either} by kicking, or by Carter digging down in such a manner as to break his leg by his own might when trying to rise. John is quite cut up over the mishap.

James X

7910

Feb. 26

Sat

at Housbourn.

107

Feb. 26: Better put down various wants so as not to forget them.

Wants etc.

Ask Con to make alphabet-Index to Vols 1 & 2 of the BKS Recorder.

Has photo. of new sheep-house for the Zulu sheep, appeared in Recorder. If not, have it made, showing the house, & the sheep.

Want good photos of the Hubbard monoplane — & a description from Gardiner Hubbard.

Have letters been sent to Miss Fender & W. Macleod.

Write to Hays, Booth, Kent & David. A Commun. for the Committee of the A.S.P.

Feb. 26. Been reading up about Proportional Representation: Sanitary Election Regulations in S. Africa with an Illustrative Election — from "Representation" (The Journal of the Proportional Representation Society; 84 Brit.) Vol 15 — 24 pp. — Dec. 1909.

Very interesting. Undoubtedly an improvement over ordinary methods. Working process seems at first to be a little complicated but undoubtedly sound. Difficult at first to understand the details of procedure but the "Illustrative Election" clears up many of the difficulties. Must study this closely. *Alth*

Where are the seven copies of Vols I and II of the Recorder and have they been bound. Collect the copies of Vol II & have them bound.

Nature Jan 6 1910. Ant Communities & how they are governed. A study in natural civics. by F. H. C. McCook pp XVII + 320. New & London: Harper & Bros. 1909 (7/6 net).

The heart of the Antarctic. Being the story of the British Antarctic Expedition 1907-9. By Sir E. H. Shackleton C.V.O. London: W. Heinemann 1909. 2 Vols. 38/- net.

Col Patterson in the game preserve of Brit. S. Africa. widow & his friend accompanying him.

Fr. Acad. Regard & Hoger — Complete & definite sterilization of the testicles of a rat without any lesion of the skin, by a single application of X-rays. Filtered through aluminium.

1910 Feb. 27

Sunday — at Houseboat.

* Some mis-spellings from the Recorder (Vol III)

Galleries 183. Philosophes 189 ~~A. Merriman~~
 J. Merriman 1; Lord Salisbury room 16; an Englishman
 as Chairman of the Convention 16; the question of choosing
 a meridian 16; The membership fees do not pay for
 the more printing of the Association Review 23; allowing
 the AAPTSD to become a more professional body 29;
~~the~~ Executive Committee 36; entomologist 67;
 entomological 67; barbarous methods employed 68;
 Jesse Romero, the boy murderer 68; and described the
 various forms of barbarous punishment inflicted on
 prisoners 69; The Colorado river had been cut off
 from access to the Saltan Sea 71. x
 Bedouin is putting the tips on the Rivers machine now
 and has one at each end of the middle surface,
 the look pretty good. 78; x Prof. Gore, Chairman of the
 Committee appointed by the National Geographic Society 97;
 Prof. Gore said that the Swedish Minister at Washington would
 advise his government 97; his visit to the bacteriological
 laboratories established in England and Kartoun
 in the Soudan 98; The propagation of the disease
 through the agency of a species of Tsetse fly 98;
 Kartoun, ~~Kartoun~~ 99 Kartoun 99 Kartoun 99 Kartoun 99
 Prof. Marshall, entomologist of the Department of Agriculture 99;
 the subject of entomology was so large that specialists
 devoted their attention to groups of insects 99;
 J. L. D. Howard, Chief Entomologist of the Dept. of Agriculture 99;
 experiments had demonstrated that flees from these infected
 ground squirrels could cause the appearance of Bubonic
 plague x (same error occurs three times on p. 100;
 Soaking grains of corn & other cereals in a poisonous
 liquid containing strychnine (which takes a long time
 x (same error twice on p. 100); He described the currents of
 water existing between Florida and Cuba in the Gulf of
 Mexico and in the Caribbean Sea. (same error repeated
 4 times on p. 120. W. Reichert spoke of Bokara 123

1910 Feb. 27

Blindery

at Houseboat

109

P. Stiles made an address upon the hookworm disease, and spoke of the gift of one million dollars by W. Rockefeller to help towards eradicating the disease in the South 123.

To continue financial assistance to a gentleman in Italy who has received for at least twenty-five years passed regular contributions from W. Hubbard 140 Kartoun 143

We seem to be on the eve of a revolution in our methods of railroad transportation through the application of the microscope to a snow-rail system, 146; X

Feb. 27: Hard frost last night. The whole lake, from the houseboat as far as the eye can see in the direction of the Grand Narrows seems to be solidly frozen over with a continuous sheet of ice — no open water visible. off

Feb. 27: (2 p.m.) Between 11 & 12 o'clock — a wind came up from the S.W. Quite a gale is blowing now with some rain. Ice sheet covered with pools of water in places — open water in the distance — pressure ridges are appearing in the distance and it is obvious that the ice is about to break up. Will watch the process from the window of the houseboat. No white-caps visible from here yet although wind is strong enough to raise great waves if water was open. Ice sheet still continuous for at least $\frac{1}{2}$ mile from shore. The intervening pools are ~~surface~~ mere surface affairs caused probably by the bending of the ice and the collection of rain-water in the depressions. Cannot detect white-caps even in what looks like open water at a distance. ~~It~~ Raining only slightly — slight sprinkling not a regular down-pour.

2.02 p.m. Doubt whether the white line visible about half-a-mile from shore is really a pressure ridge. Most likely an appearance produced by contrast between the ice and the darker water beyond.

1910

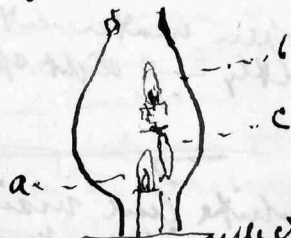
Feb
~~Feb~~ 27

Sunday — at Housatonic

Feb. 27: John McTermid appeared at the houseboat this morning, about 11 a.m. and told me that Douglas McCurdy made a flight, or 3 flights, in Bader's No 2 each & about 3 minutes duration. I wrote a note to Douglas to be given him & McTermid asking him for details.

Feb. 27: 3 p.m. No marked change in ice — no pressure ridges — no rain — The open water about half a mile from here seems to be a mere channel like a river, running down the middle of the Great Bear d'Or. Excepting for this open channel the ice sheet seems to be continuous from here to the opposite side of the Lake (Eberacadi?) — including the head of Boulardine Island. Lake in the direction of the Grand Narrows looks more like a sheet of ice than of water. Doubt whether there is really any open water excepting the channel in the Bear d'Or. Wind still high but not so strong as at 2 o'clock. It now begins to look as though the ice would hold in spite of the large pools of water that appear to have formed on it near this shore. *

Feb. 27: Last night (Feb 26) studied the reflections of a candle flame in one of the candle-lanterns.



- a - real candle flame
- b - spectral candle flame, erect, apparently in center of lens & many
- c - spectral candle-flame, upside-down.

Ordinary mirror shows reflected image apparently behind mirror. In this case the image reflected is in front of the mirror — resembling a real candle, in

1910 Feb. 27

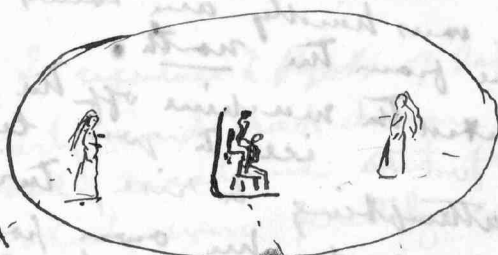
Sunday, at Housband 111

the middle of the space forming the contained within the chimney.

Very startling ghost effects might be produced by concave reflectors.

Elliptical reflector.

Room an ellipsoid of revolution. An egg-shaped chamber.



A
Real person
well illuminated
one focus of an
elliptical room.

Spectators
in middle of elliptical
room with their
backs to real
person.

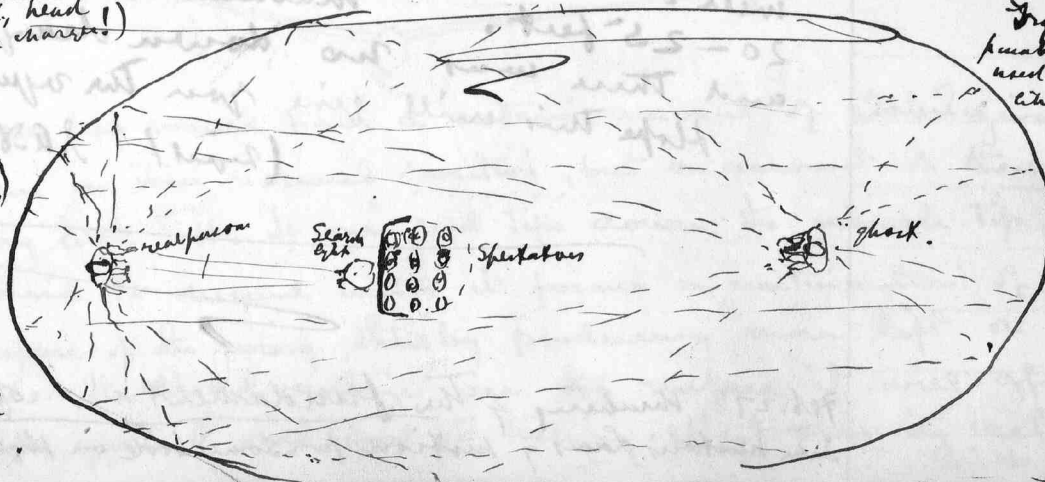
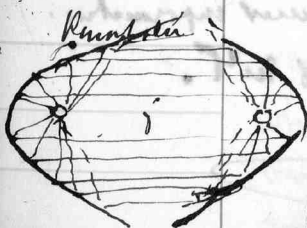
B - Ghost.
Should look real & life-like
but you could run him through
with a sword or stick
and touch nothing.

Think that a most startling illusion
might be produced in this way.

might see the ghost from outside, if portion of wall transparent,
or if near portion of wall removed.

A real man might even walk up to the ghost and
embrace her - but feel nothing! A most extraordinary
illusion might easily be produced in this way. Perhaps
the best we should employ parabolae rather than elliptical
reflectors.

(a lion's head
upon a chair!)



Try two
parabolic mirrors
used as eyes
the first used in
old photo-
phonics
experiments
in 1880.

Try with a
candle at one
focus & see
whether a spectral
candle appears at other.

1989

Feb. 27

Sunday

at Honolulu.

McC

Note received from Douglas McCurdy says: —
 Feb. 27: Received your note from John McFermid
 in which you enquired about the flights made last
 evening (Feb. 26) with Baddish No 2.

There was hardly any wind & what there
 was came from the north.

Started the machine off the big shed, and
 ran down on the ice to your little houseboat
 without attempting to rise; turned the machine
 round three under her own power & made
 for Miss Lena McCurdy's boat house. Perse
 when about off the Frager Road and circled
 round the bay twice landing off the laboratory
 wharf. Rising again into the air at the
 laboratory wharf & at an elevation of
 about 3 ft flew to the Big shed. Time
 in the air 3 minutes and 28 seconds. Absolutely
 no damage done.

After a few minutes started off again
 & repeated this performance. Time 3 min.
 40 sec. — absolutely no damage done in
 this flight either.

I feel the want of practice before
 trying any longer flights. Engine worked
 well. Elevation during flights about
 20-25 feet. Machine handled well
 and there was no down draught evident.
 Hope this will give you the required information.
 (Encl) J. D. M.C.

Feb. 27: Thinking of the fundamentals of Knowledge
 take Newton's Laws of motion from some book on Physics & start with them.

1910

Feb. 28

Monday

113

at Housebank.

Feb. 28: 7.30 a.m. — Pleochroic Halos & I. Joly Phil Mag. Feb. 1910 p. 327
 "An introduction to The Science of Radioactivity" by C.W. Raftery
 London: Longmans, Green & Co - 1909. review in Phil Mag. Feb. 1910 p. 331
 Phil Mag Feb. 1910 p. 336 Ritting & Flint surfaces due to freezing of
 absorbed water.

Action of rays on glass (Rutherford Phil Mag Jan 1910 p. 192).

Feb. 28: In response to flight of Sat. (Feb. 26): —

Westerly wind died down about 5 o'clock so
 took machine out for several short flights
 John all of which were prettily executed. J.W.B.

Feb. 28: Born on Sunday Feb. 27 a Zulu Lamb
 male, 4u, 4horns, strong, & healthy. N.M.

Manchester reports an abortive about a fortnight
 ago with a Zulu Eve.

Feb 28?

Watching the crows gliding by here I was struck
 by the pronounced dihedral angle the tips of their wings
 assumed at different times and wondered if it would
 not be possible to utilize this dihedral tip on my machine.
 At ^{the} ends of each wing would be attached a movable
 tip having a large dihedral angle as shown in diagram



These tips would have a certain amount of stabilizing effect
 when in their normal position, but on account of their angle
 very little lift. If one end tips down the movable tip is
 caused to descend until it forms a continuation of the
 surface of the wing, thereby producing more lift on that
 side. Its disadvantages are the surface it will offer to
 side gusts of wind and its turning effect when in action.

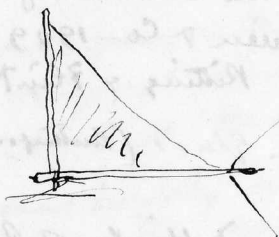
G.C.H.

1910 Feb. 28

Mouduy

at KMB.

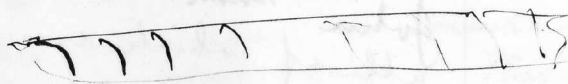
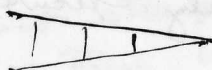
Feb. 28



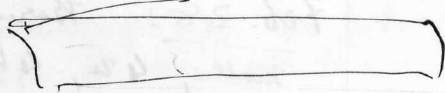
Central vertical rail-balance

aff

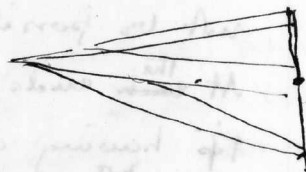
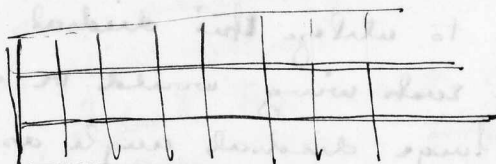
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Langley's aerodrome



aff



E.G.H.

Write to Walcott about the Rayley Tablet.

1910

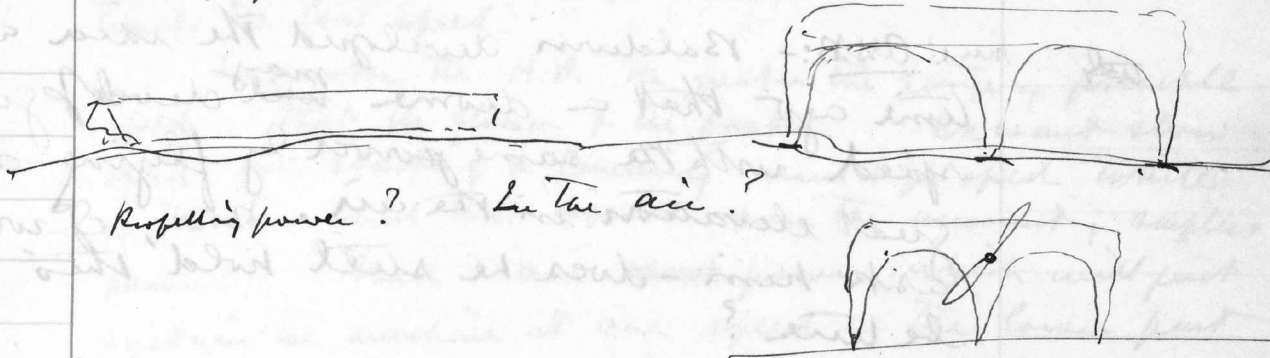
Mar 1

Tuesday

at B.B.

115

Forms & hydrophobes - bridge born.



Mar. 1: Anniversary of my father's birth. He was b. 1819 Mar 1st. I remember rightly so would have been 91 years old today had he been living.

aff

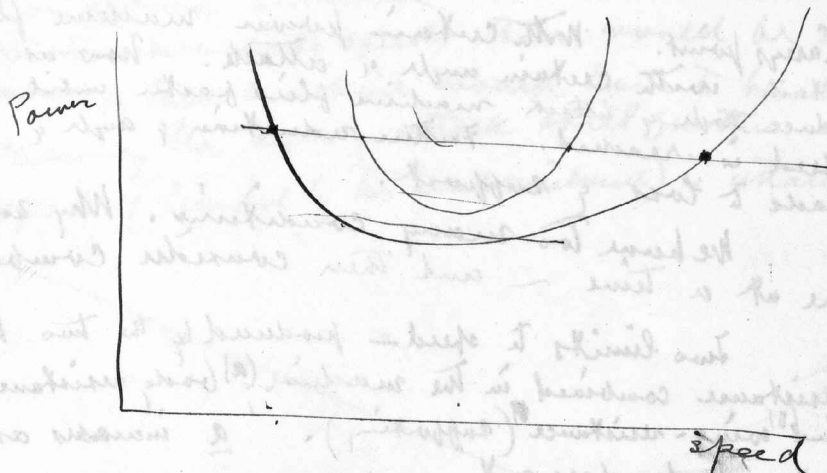
1910 Mar 1

Tuesday

at B.B.

Easy says.

Dictation by A.S.B.



Launch at lower velocity with high power - refn & unnecessary

1910 Mar 1

Tuesday

A.W.B.B.

man: A.W.B.B.:— Baldwin developed the idea a long time ago that a drone ^{may} develop greater speed with the same power by flying at a great elevation in the air. Now, I would ask him - does he still hold this to be true?

A.W.B.B.:— I think so, yes. That is, if she has enough power. It's a relation between two classes of resistance. As far as head resistance goes you gain tremendously by going up high. density of the air is reduced; but as far as diff. resistance goes you don't gain, you lose. depends upon the machine and the power. There is an economical height at which you can fly best.

Casey's point. With certain power machine flies at a certain with certain angle of attack. Now as you reduce angle of attack machine flies faster until a maximum speed is reached. Further reduction of angle of attack leads to loss of support.

We have too many conditions. Why not consider one at a time - and then consider combined effect.

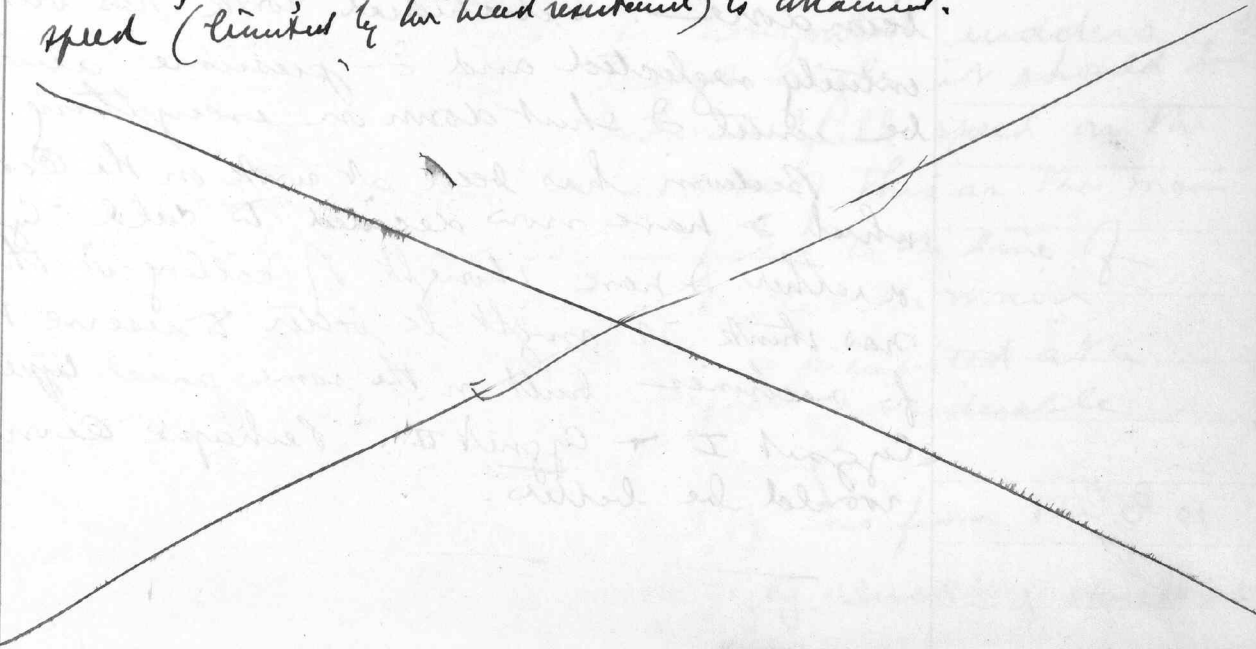
Two limits to speed - produced by the two kinds of resistance combined in the machine (a) body resistance (non-supporting) and (b) wing-resistance (supporting). 'a' increases as you go faster b does not.

b. is prop. to the angle of attack & to the speed. That is it ~~increases~~ increases as the speed is increased and diminishes as the angle diminishes. When you reduce the angle the wing-resist. diminishes. In consequence of this the speed increases thus increasing the resistance - and the net result is what?

The head resistance limits the high speed and the drag resist. limits the low speed.

The greater the H.P. the greater the range of possible speed - that is the slower & the faster. We want slow speed for starting & landing and high speed while in the air, and this depends upon the amount of surplus power. There is one ~~speed~~ power which will just sustain the machine at our speed - the lower part of the curve (part of p. 115) - this is the we may term the supporting H.P. If we have greater H.P. without change of weight etc. ~~there~~ self-support is gained ~~at~~ with a range of different speeds. There is a maximum & a minimum consistent with support and a range between. The greater the surplus H.P. the greater this range.

Casey says that there is no intermediate balanced condition between the minimum & maximum speeds. ~~At the intermediate speeds there would be a surplus lift~~ ~~so~~ that machine would have to be kept slower by reducing the angle of attack still further until the maximum speed (limited by the head resistance) is attained.



1910

March 2 ——— Wednesday

at BB 119

Budding II

Mar. 1

Mar. 2: ^(W/M) Walked down to the Lab yesterday (March 1) with Mrs. Bell. This is the first walk I have been able to take for a long time past.

A Douglas McCurdy made a few rounds on the ice, ~~in~~ not in the air, in Baddeck N.S. yesterday (March 1). He tested the engine. It was driven continuously for about 25 minutes and everything remained cool. It was not, however, driven at high speed; and when I suggested to McCurdy that this should be done at high speed, keeping down the drome by the use of the front control, he said that this could not be done as the machine would rise at the rear so as to lift the hind wheels off the ice.

Does this not indicate that we should have horizontal rudders both in front and behind which could be operated separately or simultaneously. If both the front and rear horizontal rudders should be kept at a negative angle it should be possible to run the machine at full speed on the ice without rising. Not so sure of this as the main surfaces are permanently inclined to the line of advance. It might require that the main surfaces should be horizontal or presented at a negative angle in order to gain considerable speed on the ice without rising.

The wind yesterday (March 1) was from the E or NE and the smoke from the ugly duckling Houseboat

1910 March 2 — Wed — at B. B.

showed a down-draught.

Mr. Redwin has had a small stove with a chimney placed upon a sledge so that he now has a smoke-producing apparatus that can be taken out to any part of the Bay to ascertain whether there is any downward vertical component in the motion of the wind.

Baldwin

Mar. 2: Mr. Baldwin has reached some very important conclusions relating to high flying but experiences considerable difficulty in expressing these conclusions in words.

Think the best plan will be to photograph his graphical curves and put them in the Recorder with or without any verbal description.

At any given horse power he finds that there are two critical speeds that could be maintained by the machine. A minimum speed in which the supporting surfaces are at their maximum positive angle; and a maximum speed in which they are at their minimum angle. That the machine can be sustained at either at these two speeds but not at intermediate speeds — a curious result if true. He also finds that, under the same power, the speed of the machine should increase as we go up in the air, up to a certain elevation which he calls "the economic height". Above this height the speed will again diminish as the angle of attack would have to be increased in order to support the machine in the rare

1910 March 2 — Wed — at BB121

atmosphere. His conception of an "Economic height" is a most important one and I hope he may be able to express it ~~so~~ definitely so that it may be understood and discussed & etc.

Mar 2:- The ice on the Bay is now in an ideal condition but we are unable to take advantage of it as the engines promised by Arkham have not yet appeared.

Yesterday (March 1) I sent the following telegram to General Allen, Chief Signal Officer of the U. S. C., inviting him to come here and also a telegram to Major Squier.

A reply was received from General Allen last night (March 1) stating that, as Major Squier had gone west, it would be impossible for him (General Allen) to leave Washington at the present time. No word yet from Major Squier.

Telegrams

March 1, 1910.

General Allen
Chief ^{officer} Signal Corps, War Dept.,
Washington, D. C.

Flights have commenced on the ice here. There
is try out four distinct types of diomes. Would be glad to
have you present.

(signed) Graham Bell

1910 March 2 — Reel — at B.B.

March 1, 1910.

Major Squire,
Signal Corps,
War Dept., Washington, D.C.

Wish you could come up to see our experiments. Flights have already commenced on the ice and we expect to have a lively time next week. Mrs. Bell and I will keep ~~up~~ you from freezing.

(Signed) Graham Bell

Alexander Graham Bell,
Baddeck.

Washington, D.C.
Mar 1, 1910.

Appreciate very much your invitation. Squire has gone west and I am alone so am unable to come.

(Signed) James Allen.

March 2: guided by ear-rust surgeons remove a wart from a
bird's lung. MyHerald Feb. 28 p. 3. Fox takes cover, dms. Act.
birds. Nature Feb. 17 p. 453 "The animals of Australia.
Mammals, Reptiles, and Amphibians by A.H.S. Lucas and W.H. Dudley
Le Souëf pp. XI + 327 (Melbourne: Whitcombe and Tombs Ltd 1909 15/6d).
and tadpoles p. 458.

Get my letter to P. Sowers about radium for Records.

1910 March 3 ——— Thursday ——— CR BK 123



Birthday card to Mr. Bell from Louisa Symonds.
Douglas McCurdy's present to Mr. Bell was a
beautiful flight this morning (March 3)
M. B. McC.

Dictation by Mr. McCurdy

Mar 3:- Sarah wakened me this morning at 7 o'clock with the news that Ingraham had telephoned from the Lab saying it was a good morning for a flight. Got down as quickly as I could. Met John at about the graveyard with the sleigh where he turned round and took me to the Canadian Aerodrome Company. Put on my flying costume there and drove down to the ice.

Rode the machine down to Mr. Bell's house-boat, turned around there on the ice under her own power and headed up the Baddeck shore. Rose quickly into the air, flew up to Mrs. Lennan's bathhouse, turned to the left, crossed the Bay and circled round to the big shed and on again to the Crescent Grove shore. Repeated this circuit for ten rounds. On the tenth round approaching the big shed my eye caught Melville McDonald waving his left arm. I instantly knew from a former arrangement that his telegraphing meant that ten rounds had been completed. In a moment I looked up again and saw a man directly in front of the machine waving, as I thought, frantically

1510 March 3 — Thursday — AT 13125

Thought it was Andy Ross and concluded that something must be wrong with the machine and he desired me to stop. Came down instantly and when I enquired what the trouble was found out that there was nothing wrong but that it was still Willie McDonald waving. Time for this flight was 20 odd minutes. We immediately felt the radiator and found all cool and O.K.

After a rest of about ten minutes started off again and completed a flight of 16 minutes duration. Landed off the shed, not because anything was wrong, but just because I thought I would come down.

Casey and Hardiner took the time of machine over distance between Carruth's wharf and Crescent House so that we could form some idea of the speed. What this was I haven't yet heard. mcl

Mar 3:- (A.S.B.) about half past eight this morning ~~the~~ a telephone message reached me from John McDermid saying that Douglas McCurdy had been up in the air for twenty

In the morning

1910

March 3

Thursday

at BB.

minutes and asking whether he should come up for us. We asked him to come right away and Mrs. Bell, Mrs. Baldwin, Mrs. ^{Mabel} McCurdy and I drove down to the Lab. &

After passing the warehouse and stable we heard the distant whirr of the propeller of Baddeck No. 2 and, looking over the Bay, discovered the machine in the air near the other side. We stopped the horse on the brow of the hill and watched the machine sweep across the Bay from the other side and pass us only a short distance away. The machine seemed to be about 50 feet in the air and was moving with great steadiness. McCurdy appeared to have it perfectly under control. This was certainly the finest flight I ever witnessed. It gave me great confidence in the machine and in the man. B

Baddeck No. 2 swept on past the laboratory and circled over the Bay a second time. We drove on to the ice at the Crown shed and watched McCurdy drone around the Bay several times and finally he brought the machine

1540

March 3

Thursday

ATB 27

down on the ice making a beautiful landing. I understand that the engine showed no signs of heating although the machine had been in the air for considerably over a quarter of an hour. I have not yet heard the exact duration of the flight. I thought at first that the flight was ended because of overheating, but McCurdy assures me this was not so and he came down more as a matter of precaution than anything else. So far as we could see he might have gone on indefinitely so far as the machine was concerned.

It is obvious that he must have experienced considerable cold for I notice that McCurdy's face bears upon each cheek a long white streak extending from the ~~corner~~ outer corner of the eye all the way down the cheek. This streak seems to be composed of salt indicating that his eyes had been watering and that the evaporation of the tears had left a streak of salt. I noticed that the special radiator provided for Baddeck No. 2 was not used.

1910 March 2 — Thursday — at B.B.

but that the old square automobile radiator was employed instead. I shall ask McCurdy to explain the reason for this. There was a slight wind from the west during the flight and I had the new smoke-producing apparatus taken out on the Bay to see whether there was any down-draught. The smoke floated off at an ^{slight} upward angle showing that no down-draught existed. as B.B.

March 3: — (McC) We made a test with Baddeck No. 2 radiator by running the machine over the ice on March 1. and found that the water heated at a much greater rate than was consistent with the cooling surface provided by radiator. We found this to be due, as we had formerly supposed, to lack of flow. We therefore decided to remove these radiators for the present and substitute the honey-combed which we knew would cool at least twenty-two minutes so that we could make flights right way and correct the defect in the horizontal tube radiator during our leisure time.

1900

Mar 3

Tuesday

ARB. 129

We propose to force the water coming from the pump of engine through a three-quarter tube to the outside top end of radiator and let it come back under pump pressure through all fifteen tubes instead of in the present arrangement where the water goes out through seven tubes and comes back through eight. As soon as this change is made we will test the flow by hanging radiators on the walls of the big shed and connecting by hose to engine.

This test was made with radiators designed for Avon's machine and results seemed to indicate that flow was $\frac{1}{5}$. This test was made yesterday morning (March 2).

March 3: - (ARB.) I understand that the new spark plugs in the engine seem to be O.K. and do not heat as the old spark plugs did. I do not think that any description of the difference between the old and new spark plugs has yet appeared in the Recorder and I wish that McAndry would give us some intelligible account of the difference. ARB.

190 March 13 Thursday A.B.B.

March 3. - (McC) The old spark plugs overheated mainly because the gap-terminals, across which the spark jumps to initiate the charge, were small platinum-tipped wires and, being small, will heat up very easily and because of this heat will explode the charge before the proper time. The new plugs we have are technically known as Bosch magnet plugs and their gap-terminals consist of a heavy piece of iron or steel having a form of a star fish whose four points almost come in contact with the heavy wall of the plug. This makes a spark gap the terminals of which are comparatively heavy masses of iron and so will not heat up as easily as a fine wire. McC

Mar 3. — Proposed telegram —
~~Sir Edmund Barton~~ — H. Millican Council —

F
 In
 Flights are now being made over the ice here. If you should care to look into the matter would be very glad to receive & entertain your representation.

Balwin & McCuskey

1910 March 3

Thursday

ADB 131

Major Massonell —

Good ice, making flights wish you
could come down —

Have wired Metric Council officially concerning
flights which we are ^{now} making here ~~on~~ over the
ice. Would be glad if you could see your
way clear to spend a week or so with us
at Baddeck to see what is being done.

The weather is uncertain & we should
like to take advantage of the ice while we
have it. — Boris M. Curt,

Carl Leg —

Recent flights ^{over the ice here} very successful wish you
could have seen them. Boris M. Curt
F.W.

~~Chas. Thompson~~
~~assisted Russ M.~~
~~also sent to the Cuddy, Halpin, Kneal, & to Fred Brown, London, Lewis, O'Hara~~

~~W. H. Cuddy, Halifax, Kneal, & to Fred Brown, London, Lewis, O'Hara~~

~~During the past few days Messrs. Baird and~~
~~few days ago~~
~~Mr. Curt commenced testing out~~
~~the aerodrome over the ice at Baddeck Bay.~~

~~this morning~~
Mr Douglas M. Curt covered over twenty miles
in two beautiful flights in the Dromedary
flying at an elevation of from 50 to 100
ft in the air — The Canadian Aerodrome
has built a monoplane machine

Have sent
following dispatch to
Mr. Doug M. Curt
& Capt. O'Hara

I

1916

March 3

Thursday

A.B.B.

A monoplane has been completed here
 after the plans of Mr. Sardin Stullman
 of Boston which will be tried out in
 a few days. ~~Dr. Bell~~ Two tetrahedral
 aerodromes have ^{also} been built in
 Dr. Sordanus Bell's experimental laboratory
 under the supervision of Mr. William
 F. Brown. ^{and} These also will be tried soon
~~within a few days.~~ In all,
 five aerodromes are now ready for
 trial. Three built by the Canadian
 aerodrome Co. namely Boddeh, no 1
 Boddeh, no 2, & the Stullman monoplane;
 & ^{experimental} ~~the aerodromes~~ ^{built} in Dr. Bell's laboratory
 namely Cygnus II & Cygnus no I,

a telegram has been received from
 the Chief ~~Signal~~ Signal Office of the
 U.S. Army expressing ~~the~~ ^{his} interest in
 the U.S. War Dept in the trials now being
 made at Boddeh

Graham Bell

1560 March 3 — Thursday — at RB 133

General James Allen
U.S. War Department
Washington - D.C.

~~Mr Douglas McCurdy covered over twenty miles
in his beautiful flight in the Orane Baddeck
No 2. Very wish you had been here to see them.~~

Two beautiful flights were made this
morning in the Orane Baddeck No 2. Elevation
wish you had been here to see them.
Elevation from field at 700 ft. Total distance
traversed more than twenty miles —
Douglas McCurdy of Baddeck. aviator —
Ernest Bille

March 3:- Speed of Baddeck No. 2 Mar. 3

John made two of the best
flights that we have seen this
morning. The first was ten times
around the bay lasting 20 min
& 30 sec. and the last was
a 16 min. one. On the first
flight John mistook a signal and
something must have
gone wrong landed. On the
second he landed because
the throttle slipped. The engine

134
1910

March 3rd at. B.B.
Thursday.
was perfectly cool and
everything very satisfactory

On the start of the
second flight we got
her time between
Mr. Carruth's wharf and
Mr. Idennans boat house
The time was $64\frac{1}{5}$ secs
and the distance which
we measured carefully
with a steel tape - 3120 ft. 8 in.

$$642) 31206 (48.60 \text{ ft. per sec.}$$

$$\begin{array}{r} 2568 \\ 5526 \\ 5136 \\ 3900 \\ 3852 \\ \hline 480 \end{array}$$

Speed 68.60 ft per sec. or
Speed 33.14 miles per hour.

$$\begin{array}{r} 48'60 \\ 60 \\ 88) 2916 (33.14 \text{ m.p.h.} \\ 264 \\ \hline 276 \\ 264 \\ \hline 120 \\ 88 \\ \hline 320 \end{array}$$

There was practically no wind
out of a large no. of readings an
Anemometer only two showed
as much as two miles per hr. S.W. 7 m.p.h.

1910

March 3

Thursday

at 12:45

Recorder

- Vol II p. 100. Teaching a dog to talk.
 p. 102. Propellers for flying-machines
 p. 106. Significance of results with Hg & Dantling
 p. 150. The speed of a drone in the air.
 p. 154. Moral Education in childhood.
 p. 160. Improvement of the Human race in America and what the Community as a whole can do to foster it.
 166. When does perfit become asary.
 173. The multi-muffed sheep of Kilmurrough (from Science)
 202-230. The Metric System.
 231. Intelligent dust
 232. The neighbouring worlds, Neus & Blues.
 266-303. Sheep statistics relating to twins.
 304. a few thoughts concerning Engines
 317. Elementary principles of Engines.
 322. What to do with the House of Lords.
 336. a few thoughts about Kaddell 202 & flying high - the aerobome in plan & war.
 346. Warming & cooling by radiation
 451. a few thoughts concerning rotating propellers.
 456. the frequency with which words are used.
-
- Vol III 5. Instruction of the Yeap.
 22. How to improve the usefulness of the American Assoc. to promote the Teaching & Speech to the Yeap.
 146. Address at the presentation of the Langley Medal to the Wright Bros. at the Smithsonian Institution Feb. 10 1910.
 p. ? Shall women vote?
 p. ? Natural Selection
 p. ? Investigation concerning the frequency of words.
 p. ? The tetrahedral principle in kite structure.

Will examine old note books for other articles to be placed in the Recorder. *affs*

1910 Mar 4

Friday

at. 1313, 137

Mar 4: Laid flight this morning with Buddick No 2 -
left the ice in the usual way at about 8 AM.
There was a wind from the north or N.W.
must round the bay about twice in 6+ minutes
& then landed because there was too much
wind. The anemometer showed 5 mph on
the 1313. shore. 6 mph. in the middle of the
bay & 9+ mph on the Crescent shore -
Bosum had a good smole in the sledge
stone but there was no down drayst-
evident. Jaomee

Mar. 4: (F.W.B.)

John made flight of 8 1/2 mins. this morning,
in Baddeck II. Puffy wind made it
advisable to come down. Everything OK.
Social Aero Club Mar. 2. 7.W.B.

Mar 4:- (Mcd) The Social Aero Club met
on Wednesday evening (March 2) in their
club rooms. Present about twenty-five
members.

It was arranged that this meeting
should be given over to games and general
entertainment and so for most of the
evening jing pong, cards, crokinole and
checkers were taken part in by all.

The feature of the evening was a
four-handed jing pong tournament

1911 March 4 Friday AKB

for, ~~as I understand~~ as it was
 hinted around, the championships of
 the Club. Mr. McFarlane and Mr.
 Byrnes versus Mr. Watson + Mr.
 Spaulding. It was certainly wonderful
 to see with what dexterity + ease
 the both side handled the ball +
 some of the strokes executed moved
 I am sure to a credit to the
 Dohs in the ^{Davis cup} ~~Byrnes~~ matches...

at about eleven o'clock our efficient
 house committee gave us a
 spread after which the President
 called the meeting to order + stated
 that the business before the meeting
 was to decide upon a subject
 for discussion next Wednesday
 evening.

Mr. Watson proposed
 the subject. "Should the franchise
 be extended to women."

The subject was unanimously chosen

1910 Mar 4

Friday

at 139

& Mr Watson ^{was} asked to lead off on the
negative side & Mr Davidson ~~on the~~
to defend the ~~affirmative~~.

It was further proposed & decided
to set apart Wednesday evening Mar 9
for an open night & each member
was given the opportunity of
bringing his friends - (a limited number
left to his discretion) both ladies &
gentlemen - The hope was

expressed that Dr Bell would be present,
& say a few words upon the
Franchise question - The house
from across -

Committee - Mr Manchester, Mr Hulborn &
Mr Birdie were unanimously elected
to hold office for next term.



Droming Over the Ice 100 Feet in the Air

**Testing of Aerodromes at Baddeck Going on So
Successfully That the Head of the United
States Signal Service Expresses His In-
terest in the Experiments.**

BADDECK, March 3—Droming over the ice at Baddeck bay started here a few days ago for the purpose of testing out aerodromes constructed by Messrs. Baldwin and McCurdy, of the Canadian Aerodrome company.

This morning Douglas McCurdy covered over twenty miles in two beautiful flights in the drome Baddeck number two, flying at an elevation of fifty to a hundred feet in the air. A monoplane has been completed here after the plans of Gardiner G. Hubbard, of Boston, which will be tried out in a few days. Two tetrahedral aerodromes have also been built in Dr. Bell's experimental laboratory under the superintendency of W. F. Bedwin, and will be tried soon.

In all five aerodromes are now ready for trial, three built by the Canadian Aerodrome company, namely, Baddeck number one and Baddeck number two and the Hubbard monoplane, and two built in Dr. Bell's laboratory.

A telegram has been received from General Allen, chief signal officer of the United States army, expressing his interest in the trials now being made at Baddeck.

IV
Mar 4: W. Bedwin was at the Point this evening —
He told us that a horse had fallen off the wharf
in Baddeck and had crashed through the ice
into the water. It had been saved with difficulty.

1910

Mar 4

Friday

at 1515. 141

The Morning Chronicle

HALIFAX, NOVA SCOTIA, MARCH 4, 1910.

SUCCESSFUL AIR FLIGHTS AT BADDECK

Mr. McCurdy, in His
Aerodrome, Sailed
Through the Air
Like a Bird

BADDECK, N. S., Mch. 3—Droming over the ice on the Bras d'Or Lakes is again getting into full swing. J. A. D. McCurdy, in his aerodrome Baddeck No. 2, made two magnificent flights of thirty-five minutes duration, alighting in both cases with the grace of a bird.

The weather being so mild all winter, the ice has been in poor condition. Now that it is in shape some great flights are expected in the near future.

There are now five machines ready to be tried out, Baddeck No. 1 and Baddeck No. 2 and Mr. Gardiner Hubbard's monoplane, all built by the Canadian Aerodrome Company, and two other machines built in the experimental laboratory of Dr. Alexander Graham Bell, under the superintendency of Mr. W. F. Bedwin, of Sydney, C. B., the Cygnet No. 2, and the new Oionos No. 1.

Droming over the ice at Baddeck is the real thing in winter sport.

1910

March 5 - Saturday - at B.B.

March 5: - Mrs. Bell ^{discovered (March 4)} had lost her pearl necklace. She remembers having it on Wednesday night (March 2) and can't remember anything more since. She has searched everywhere for it. W.B. Mac

March 5: - The following telegrams were received from Ottawa yesterday (March 4):

Ottawa,
Mar. 4

F. W. Baldwin,
Baddeck, C. B.

Re Governor-General desires me to thank you for your telegram and congratulate you on successful flights. And they hope you will forward full report from time to time.

(signed) Arthur T. Bladen

Mar. 4.

McCurdy + Baldwin
Baddeck, C. B.

I shall leave Montreal on Maritime Express Sunday noon. Please have everything in readiness for flight early next week.

(signed) Major Mansell

1910

March 5

Saturday
Sunday

A. V. B. B. 143

March 6: - (A. V. B.) Rough notes for article explaining the recent changes in the A. A. P. S. S. D. and the Association Review.

Basis:- Running expenses including publication of Review not met by membership fees. Advisable that this should be done so that the income from the endowment funds should be strictly applied to the purpose for which they were created. It will require a membership of at least 8000 to pay for the Review alone. Total number of teachers of the day in U.S. and Canada (including industrial teachers) amount to only 1684 1777 according to latest A. A. S. statistics. In order therefore to reach a membership exceeding 8000 it is obvious that the memberships must be recruited mainly from outside the ranks of the profession. In order to do this the publication of the Association - the Review - should be made interesting to non-professional readers as this publication is all we have to offer in return for membership fee.

It is necessary to enlarge Association can't be done from the profession. Have to go to outsiders. But the key to the whole thing.

1910 March 6 — Saturday — at B.D.

association suffers from scattering
 official headquarters in Rochester, N.Y.
 actual business office and center
 of activities at Volta Bureau, Washington,
 D.C.

Directors scattered all over the country
 can't come together.

Remedy — concentration upon
 Washington, D.C. with a working
 quorum of the Executive committee
 of the Board resident in Washington, D.C.
 Reorganization of association under
 laws of District of Columbia,
 Advisory Council to Board.

Policies — concentration in the
 management. a publication of
 interest and value to non-
 professional people to come out
 regularly as a monthly and a
 systematic effort to enlarge the
 membership outside the ranks of the
 profession.

Special classes to aim at in recruiting
 membership that have not yet been
 touched. ~~Parents~~. Persons who have
 become deaf in adult life.
 Parents of deaf children.

1920 March 5 — Saturday — A.S.B. 145

Teachers in the public schools for the hearing young people generally — there is no publication devoted to giving useful information to young people — nearest approach is the *Youths Companion* but this does not fill the want of a periodical of educational value giving information on all the current topics of the day and upon the subjects I study in the Public Schools written in an entertaining and untechnical manner and well illustrated after the manner of the *National Geographic Magazine*. Such a periodical would appeal to the general public as well as to young people.

Policy of electing to the Board only persons who can reasonably be expected to attend the annual meetings. Other persons to constitute an Advisory Council to the Board. Best way to elaborate the subject will be a letter from the Chairman of the Advisory Council (A.S.B.) to the sub-committee of the Board in Washington, D. C. This letter to be published in the *Review*. A.S.B.

1910 March 5

Saturday

ATBB

Messrs. Fairchild, Gurney & Mason,
Sub-committee of the Board of Directors
of the A. A. P. T. S. L.

1910 Mar 5

Sat

at Houseboat

Mar 5: Mabel's pearl necklace was found this afternoon by Gardiner Hubbard on verandah where we sleep close to the bed. It had evidently been dropped there and had fallen through a crack on the floor to the bottom of the empty space between the two floors; Gardiner spotted it through the cracks and fished it out with a bit of wire.

Mabel walked half-way down to the houseboat and was mistaken by John McErmid who drove us the rest of the way.

The following is from The N.Y. Herald March 4 1910

CANADIAN BIPLANE IN LONG FLIGHT

[SPECIAL DESPATCH TO THE HERALD.]

BADDECK, Nova Scotia, Thursday.—Mr. J. A. D. McCurdy, whose aeroplane flights here last winter attracted much attention, resumed operation to-day with the biplane, Baddeck No. 2, which promises to surpass anything done last winter with the Silver Dart.

Two extraordinary flights were made this morning over the ice of Baddeck Bay, the first flight lasting twenty-five minutes and the second sixteen minutes. The new machine travelled at about forty miles an hour and showed perfect steadiness.

The flights described wide circuits of several miles around the bay and most of the time the machine was kept at an altitude of one hundred and fifty feet. The new balancing devices upon which Messrs. McCurdy and Baldwin have been working gave excellent results. The machine was built by the Canadian Aerodrome Company, and the flights were near the home of Dr. Alexander Graham Bell, who is actively interested in the development of the new model. Other flights will be made and it is believed here that new world records may be established over the ice within the next fortnight.

1910

Mar. 6

Sunday

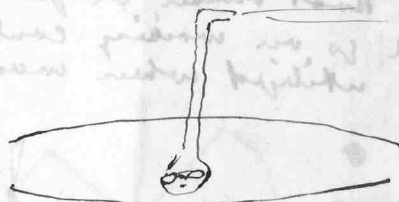
at Houlbent,

147

Aurora

Mar 6: noticed last night that Northern sky over top of B.M. seemed to be somewhat brighter than elsewhere and suspected aurora concealed by the mountain. John McTernid, when he came with the mail last night (Mar 5) reported that he saw Northern Lights - "very pretty - but did not extend very high". I judged that it was an auroral arch, low-lying, and not very active.

Looking out from the Houlbent this evening (Mar 6) I notice the same brighter appearance in Northern sky observed last night - so suppose there may be auroral glow again tonight. Mountain hides any low-lying effects. Should think lowest part of Northern sky visible from here must be 30° or 40° or even more from the horizon.



Root Blower.



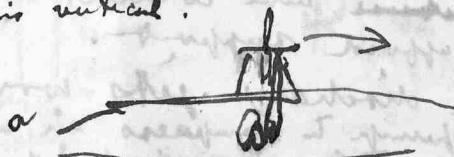
Exhaust

$$\begin{array}{r} 95 \\ 30 \\ \hline 2850 \\ 60 \\ \hline 171000 \end{array}$$

$$\begin{array}{r} 5 \\ 95 \\ \hline 100 \end{array} \quad \begin{array}{r} 60 \\ 95 \\ \hline 100 \end{array} \quad \begin{array}{r} 95 \\ 30 \\ \hline 1250 \end{array}$$

Mar 6: Utilize discharge of exhaust for balancing purposes. App

Utilize small propeller for balancing purposes (suggested by Ingraham's paddle wheel balancer). - either (a) above or below center of machine - or (b) at end of wings. In first case (a) axis of balancing propeller horizontal & transverse; in second case (b) axis vertical.



Rotate one direction
paddles say to starboard.
In reverse direction paddles
to port, paddle wheel only,
others in position - propeller alone

axis of
surface



Balancing propellers

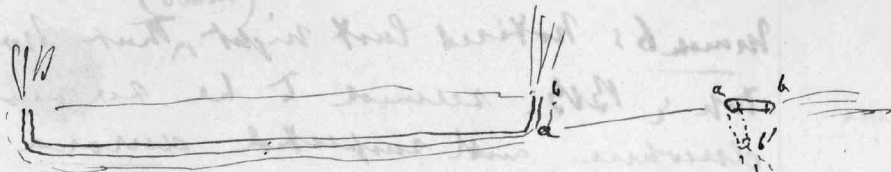
at end of wings

Objection: It takes time to start these propellers. A Root blower would be in continuous operation & draught could be directed where wanted. Same with exhaust of engine. Direct it where wanted.

1910 March 6

Sunday

at Housatonic.



Discharge of air or gas, at ends of wing-pipe could be utilized for balancing purposes.

Continuous discharge through directly back helps advance. Defuses nozzle so as to blow down helps to elevate that end. Elevate it helps to defuse end, blow down at one end and up at other end and a ripting action is produced.

As ripting action only needed occasionally not necessary to have a continuous discharge. If we have a store of highly compressed air continuously



with pipe, then sliding valve could open hole above at one end and below at other end. The discharge, (which would only be continuous so long as necessary to produce ripting action), could be shut off when not wanted. The best blower, or pump, to produce compression of air could go on working continuously - the discharge only being utilized when wanted. off



Flange tube to direct discharge.

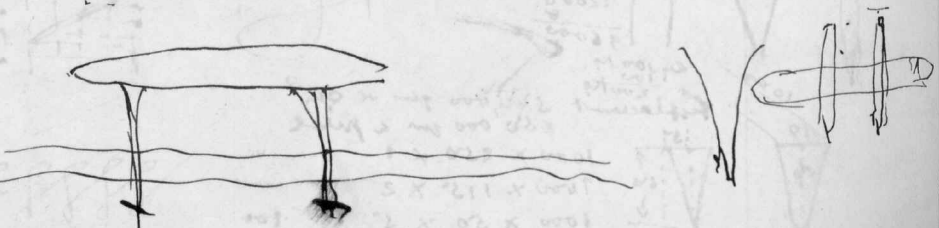
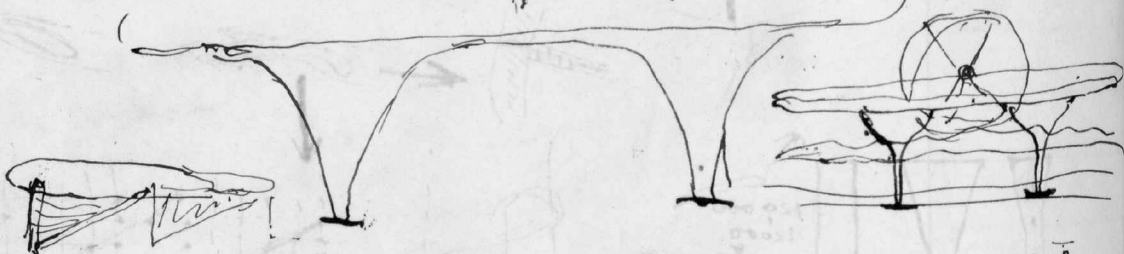
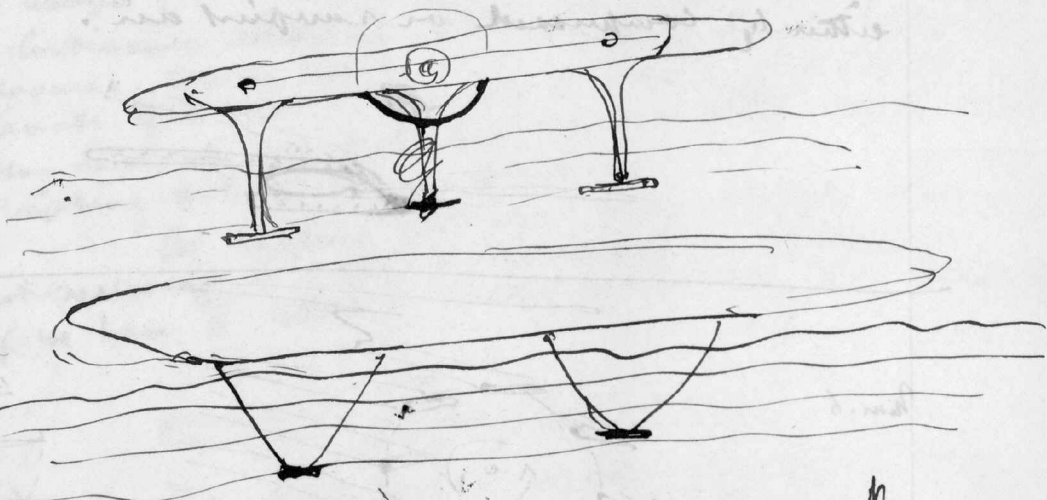
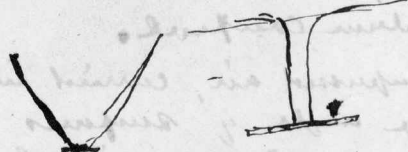
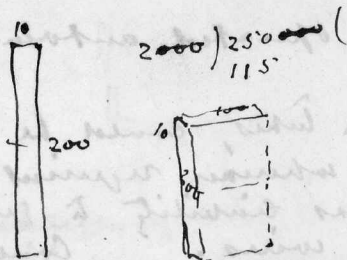
Could discharge jets be used in place of all the controls? They could have the advantage of leverage. * The necessary tube-connections would not introduce as much resistance as ~~transmission~~ tube connections could be so shaped as to afford support.

The utilization of discharge jets worth considering. Engine can work a pump to compress air in a suitable chamber. The discharge of this air at points far removed from the center of gravity (or center of pressure) could be utilized to perform various turning actions. Could certainly perform function of steering to right or left, function of ripting, perhaps also steering up or down. Horizontal steering, certainly, others probably.

1910 Mar 6

Sunday

at Hombant



1910 Mar 7

Monday

at BB 151

S
✓
Mar 7: Had a grand series of flights this morning:-
Set Beamer No 2 into the air at about seven o'clock with Casey & myself on board. made short flight of about half a mile in length - Beamer good & I think better than when machine only contains operator. Made a second 1/2 mile flight & the was followed by a third flight of a mile or more - Casey & I on board for all these flights. - Went to start a fourth time but found that long comb radiator was frozen - We therefore took out this radiator & put back our own design horizontal tubes. & started off. McCurdy alone. Flew about 15 minutes & then landed. Started off again (McCurdy alone) & made 13 rounds of the bay in 30 minutes & some seconds - Flew very close to the ground about 5-15 feet elevation & so accidentally touched the ice - during a little puff of wind. Therefore

1910 Mar 7 Monday at KSP

landed as there was ~~no~~ no good
in trying to fly for an hour.
no heating of engine or motor
Everything OK. J.W.B.

J.W.B. Mar 7: Bedium saw the bionos to see
the ice this morning - then a few
terms. No attempt made to fly her.
She looked very pretty. J.W.B.

1910 March 7

Had very successful morning
with Baddick II. She carries
two apparently as well as one
& John says balance is
slightly improved. Passenger
shuts off a lot of the honeycomb
radiator so that engine heated
up. Put on self-supporting
type of radiator & John made
two more splendid flights by
himself - 15 mins and 30 mins.
Radiator cool & everything
satisfactory at conclusion of flight. J.W.B.

1910 Mar 7 Monday at B.B. 153
 G.G.H. Mar 7: Woke up early this morning arriving at the shed by seven
 o'clock. Perfect weather, but very cold. They soon had Bedwin
 No. 11 ready for flight and Douglas and Curry got aboard.
 She carried the double weight as easily as possible and I do
 not think I ever saw her so steady. No attempt at a long
 flight was made. Plain water had been put in the radiator
 which now froze and it was decided to try the old one
 which had been changed to afford better flow. This change
 made Douglas wait into the air alone making two
 very pretty flights, at low altitude, of 13 and 30 minutes.
 She was very steady and the radiator proved that it
 would cool perfectly. Bedwin also had the Oionos, which
 looks extremely well, out and ran her around the ice several
 times.
 G.G.H.

W. B. Mar 7: Bedwin tried the Oionos with the
 small air cooled engine - geared 11 to 30
 (approx) diam. of propeller about 7 1/4 ft.
 She moved along about 12 to 15
 m.p.h. & seemed to steer
 easily. The after starboard wheel
 came off during one of the runs
 but the machine came down on
 the skid & no damage was done.
 W.B.

W. F. B. Mar 7
 Tried the Oionos machine on the ice this
 a.m. had on the little 4 cyl aircooled engine
 geared 12 to 30 to a 7'4" two blade propeller
 everything worked finely.
 found that rear axle of tractor needed a little
 strength reinforcement. also found that there
 were some little details that can be
 improved such as lightening out the

154 1900"

mar 7 mondy

at R.R.

~~steering her.~~

steering her. etc.

W.F.B.

made five runs around the
bay of about a minute each
engine would then get hot.

W.F.B.

P.S.
steering worked first. class not a
bit of trouble to keep her in any
direction.
during one of the runs the rear wheel
came off the starboard side and
machine settled onto the skid doing
no damage. W.F.B.

Mar 7. John McNeil - hole in camera - no photos.
Sam Macdonald - swapped photos all the morning
no plates in his holder. X.Y.Z.

A. H. F. A

B-month

Total	894	259	435
Unkn	24	24	-
Jan.	870	435	435
Feb	22 (13)	12	10
Mar	369	177	192
Apr	268	145	123
May	178	84	94
June	33 (16)	17	16

1910 march 7 ————— Monday ————— at 13.55.

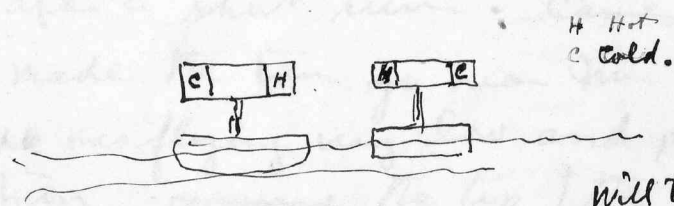
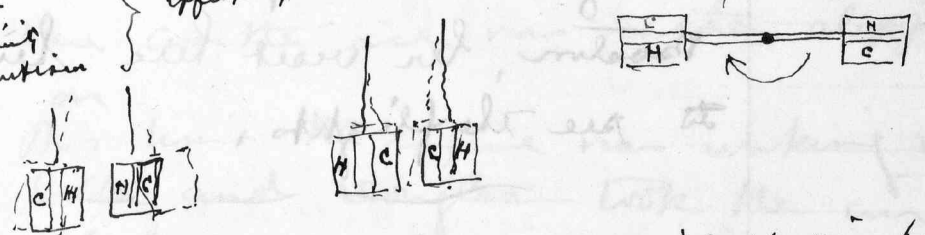
wf 4 n tw
 113 wf 4 n tw 3-85 wf 2 n x 12-86 um 2 n x
 0 1891 6 0 5
 1 1892 1
 2 1893 311 um 3 n s may 287
 1893

1314 B m s n s 1208 wf 5 n s 1221 um 6 n s
 born march 7, 6 lbs. mo 1 yr 7a. 1 yr.

all action is by impact.
 Attraction produced by action of a material medium pushing the bodies together.
 Repulsive produced by action of a material medium pushing them apart.
 Cohesion: an attractive effect produced by a surrounding material medium pushing the particles of the body together.
 Gravitation: an attractive effect — — — — — pushing the separated bodies nearer together.

Light
 Heat
 Electric
 Magnetic

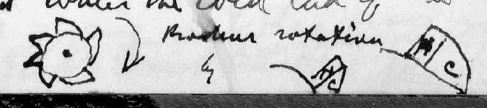
effects produced by the motion of the medium



Will floating bodies
 hot at one end and
 cold at the other move
 in the direction of the
 cold end.

Will two such bodies attract one
 another when their cold ends are presented
 to one another, and repel when their
 hot ends are presented.

Will such a body be repelled when the hot end of a rod is
 presented to its hot end, and be attracted when the cold end of the
 rod is presented to the cold end.



1910 Mar 8

Tuesday

at V.B.s,

Z

V

J.M.C.

AA

V

Had a big storm from the South last night. The waves were very high & their force was so great that the ice was completely broken up down the Bay as far as the Baharatay wharf --

The bay is now filled with large clumpers & if some frost would come along these clumpers might be cemented together. - Major Maurell arrives here tonight so we must hope for the best.

Major Maurell arrives at V.B.s. Hall this evening - He was met at the Narrows by T. A. Maurell & J. A. McCord - Miss Georgina McCord also arrives from Boston, her visit here being especially to see the flights.

J.M.C.

1910 March 9 ——— Wednesday ——— at BB?

AB
✓
March 9:- (M.B.M.C.) walked down to the Laboratory this morning about half past seven the rest having gone ahead. When I arrived there they were ^{unsuccessfully} trying to start the engine. At first we didn't know what was wrong but after a while found out that there was a leak somewhere, or at least that is what I understood Mr. Baldwin to say.

After waiting quite a while she finally started and Douglas ran her down the Bay but the engine wasn't working well so he stopped down there and, after they had turned the machine, ran her back to shed under her own power.

The next time she started A well and Douglas again ran her down to the head of the Bay taking Willie McDonald around with him so that he could start the machine up down there as the ice was rather slippery to turn on.

This time the engine was working well much better and Douglas took the air after a short run. Came up Bay and made the turn near Mr. Kennan's boat house. He was flying very low and, while making the turn, ~~a wing~~ the tip of the wing touched breaking a small stick; however he flew on back to the shed and alighted @ 15. ^{greatly} pleased with the flight.

Major Russell expressed himself as ^{greatly} pleased with the flight. Mr. Baldwin had the smoke going and there was no down draught. Grand appeared to be Smith West. ^{perhaps, Jim Smith} M.B.M.C.

1910 March 9 Wednesday at B.B.

General Lake,
Inspector General
Militia Department, Ottawa.

Good flights today over ice. Carried me
two miles. Further trials tomorrow and
succeeding days. Ice may last some
days yet. I propose leaving here Friday
next.

(sigd) Maunsell

1910 Mar

1910 Mar 10

Thursday at B.B.

Mar 10: Meeting Social Aero-Club last night. After
meeting and ladies present. Discussion Woman's Suffrage.
Topic "Shall women be allowed to vote" Result 9
Ballot

	Yes	No	Total
Ladies votes	10	2	12
Men's votes	9	15	24
Total votes	19	17	36

Mar 10. Douglas circled the bay three times. Early
this morning in Kaddick No 2. Landed nicely
but ~~ran on the ice~~ before machine ~~could be~~ stopped
ran on to broken ice. Tried to turn on the
broken place & run back to the good ice - but
one wheel went into the water between two
pans of ice & was damaged. Machine soon
repaired - but wind came up preventing further
trials. Mechanic took Droun No 1 on the ice
for a spin with the Curtiss Air-cooled Engine.
Have given instructions to put the tail surfaces horizontal
so as to be parallel to thrust of propeller. Also to put
principal surface in front control to balance without rudder at

1910 Mar 10

Thursday

at K.B.B.

159

Machine affected by wind on the ice. Bedwin found he could not steer it properly at an angle to the wind. Skidded badly.

Mar 10: I knew that Mr. Dodge ~~photo~~ the Sydney photographer, arrived in Kadeuke today to take photos for us.

Mar 10 Miss ^{Nevelly} M. Clancy had a telegram from her father in Halifax stating that Mr. Frazer, Lieut-Governor of Nova Scotia will leave Sydney for Kadeuke to witness the flights here. Have telegraphed Gov. Frazer inviting him to stay with us here.

Mar. 10 (F.W.B.) -

Beautiful morning for flight. not a breath of wind at seven o'clock when we drove down to shed. John made circular flight of two rounds in 4 mins. 30 secs. Engine faded so came down near shed. While trying to turn around ^{rear} one wheel went through ice breaking one of the wheels and some of the fittings for front wheel. Delay of 12 hrs. or so for faint chances for further flights as N.W. wind sprang up. Have shifted back to honeycomb radiator as for some unaccountable reason engine showed signs of overheating although nothing had been changed since 1/2 hr. flight.

Mar 10 Bedwin ran around with Osmos (small air cooled engine) Speed about 16 m.p.h. High wind held all day and. Refit up after sundown so no further flights could be attempted (F.W.B.)

1910 Mar 11 — Friday — at KRS.

(Mar 10) ^{Mar 11} Yesterday morning, Beedick no 2 was
flown. Made two rounds of the bay
& landed in front of shed nicely but.
Machine ran on owing to her speed
past the shed. I therefore stopped that
under closed throttle I forced turn
her round on ice & bring her
back to the shed door. I moved
to port - on the ice running slowly
but ice was so slippery that
wheels skidded & so I had to
run over the clamper ice -
The new ice between clampers.
was not strong enough & rear
inside wheel went through & bent.
A belt in front wheel
bracing also broke & the
repairs took about 2 hours -
We had to attach a long rope
to machine & drag her

onto the ~~xxx~~ good ice, thereby showing
the use of the skids.

He also replaced the honey combed
radiators because for some unexplained
reason the engine heated although
everything was exactly the same as
when half hour flight was made -
too windy for further test. Jasm^c

Mar II

✓ This morning he flew Boodick 102
again. Made two or three rounds
of Bay at elevation of about 40-50-60
feet. Good flight - landed off
shed making good landing.

On second trial wind proved
tricky & so came down
without making a real flight -
with westerly wind squalls.

Came off Graves' pond gully & off
the gully at the spring overflow on
the N.E. shore. Jasm^c

1910 Mar 11 — Today — at K.B.

Mar 11. The photographer from Sydney took photos of all the machinery on the ice this morning — Biddell No. 1.

Biddell, No. 2; & Mike Mospleave —

The Eggert. II will be photographed this afternoon as it will take some

time to get her out on the ice as there are no whels under her — & she will have to be lifted a good deal.

Biddell No. I has had her

whels removed also so she was not taken out either —

The photographer. (Mr. Eaton from Dodge & Co Sydney). assures me

that he secured exposures

of the Biddell No. 2. in fact,

James

Mar 11. Home through the ice

✓

0412

ca

+

May. Russell by the above boat for

19 10 Mar 12 — Sat — at Houseboat.

The Grand humans find Sydney. He proposes to spend Sunday in Sydney and examine the rifle - Targets there, leaving Monday morning (Mar 14) for Ottawa.

Mar 12 - This evening (Mar 12) we entertained Gordon Fraser at dinner. Present: Gov. Fraser, his son W. Alister (?) Fraser, W. & W. MacCusdy, Miss Georgina MacCusdy, Miss Mabel MacCusdy, W. Bell, W. Baldwin, W. Baldwin, W. MacCusdy, W. Hubbard & A.B. x

Postulate!

The simple postulate is that matter is inert.

Postulate: ~~Assume that~~ Matter is inert.

~~Consequence:~~ ^{Consequence:} No particle & matter can act directly upon another particle except by its inertia.

If this is true then it follows that attraction ^{and} repulsion are not inherent properties of matter.

Corollary! ~~Matter has no inherent power of attracting or repelling~~ (Negative) Attraction & repulsion are not inherent properties of matter. Matter has no inherent power of influencing the conditions of



~~Fundamental~~ Properties consistent with the postulate: - Impenetrability and Inertia

Properties inconsistent with the postulate: - We cannot assume that a particle has any inherent power of attracting or repelling or influencing other bodies excepting that by virtue of the properties of impenetrability & inertia.

1910 Mar 12

Sub

at Housebook 165

Halifax Chronicle Mar. 12 1910

MORE FLIGHTS BY THE AERODROME

Lieut.-Gov. Fraser Will Wit-
ness the Experiments
at Baddeck

Special to The Morning Chronicle.

BADDECK, March 11.—In the Aero-
drome, Baddeck No. 2, today, J. A. D.
McCurdy again made several success-
ful flights, at heights varying from
forty to seventy feet, he circled the
Bay several times. The bird-like
machine was always under perfect
control, and the aviator alighted with
the greatest of ease.

Major Maunsell witnessed today's
flights and he was greatly interested.
Among those who arrived here to-
night to witness the flights was
Lieut.-Governor Fraser, of Nova
Scotia. It is expected that further
tests will be held tomorrow.

Halifax Herald Mar 12 1910

Governor Fraser To See Flights

BADDECK, March 11.—Flights for
Major Maunsell were continued this
morning. McCurdy in Baddeck No.
2 dromed over the ice on Baddeck
Bay at a height of from fifty to sev-
enty feet, circling the bay three or
four times. Everything worked well.
Major Maunsell has expressed himself
delighted with everything he has seen
and is so eager to see all the flights
that he rises at six o'clock every
morning.

One of the farmers who had driven
over fifteen miles early in the
morning to see the flights was so in-
tent gazing at the drome which was
soaring far above that he forgot all
about his horse and was only recalled
to himself when he felt the sleigh
jerk forward and nothing was to be
seen of the horse but his head. While
the man was gazing into the air his
horse had moved forward onto the
clamber ice, which filled the upper
part of the bay. There was great ex-
citement at the time, but the horse
and man were saved.

Lieut.-oGovernor Fraser and friends
from Halifax, arrive at Badeck this
evening to witness flights.

1910

Mar 13

Sunday — at Houseboat.

Mar 13: The latest number of Nature received here contains an article concerning the stability of aeroplanes by Prof. Bryan F.R.S. I am encouraged in ~~the~~ ^{my} use of the words "Aerodrome" & "Aeroplane" by observing that Prof. Bryan attaches the same significance to the words. "Aeroplane" in his usage, ~~is applied~~ ^{is applied} to a plane surface & not to the machine itself. The machine he calls an "aerodrome". I have always used the words with these meanings since the days of Langley, but have observed a constant tendency in the press to a corruption of the words. The word "Aeroplane" has been used for the machine, whether it has, or has not, flat surfaces. And the word "Aerodrome" has been applied to the building in which the machines are housed instead of to the machine — just as ridiculous an application as though we were to apply the word "Hippodrome" to a stable in which horses were simply kept not run.

I have fought this tendency by consistently using the words myself — in what seem to me their proper meanings, and I begin to see signs that they are finding favor with others also. I have recently also been employing "aerodrome" in the contracted form "drome" — and using it also as a verb. While most of the press notices in which "drome" or "droming" have occurred can be traced back to Hein Blough or Agg, there words seem to have found favor elsewhere.

Press dispatches from describing the Los Angeles Aviation meet spoke of "Haulman" as "droming" over the country. ~~and~~ (this was not my doing — unless Curtiss supplied the word). I preserve here a cutting from the Frontier

B.B. Smith

1910 Mar 13 — Sunday — at Houseboat ¹⁶⁷

Companion which shows that the word "drome" is attracting attention.

Father's Companion

March 10 1910,

DROME, an air-ship; droming, the act of flying in an air-ship; dromer, one who dromes. These are candidates for admission to the dictionary. They have already been adopted into newspaper English, and one hears them occasionally in conversation. They come from the Greek word meaning to run, and are abbreviated from an older form, aerodrome, which has been in use several years. It is to be hoped that hippodrome and dromedary, which have been droming a long time, will not object.

Nature Jan. 13 1910 p. 305. "The family and the Nation: A study in Natural Substantance and Social Responsibility"

by W.C. Dampier Whetham F.R.S. and Catherineurning Whetham
pp viii + 233. London, Longmans Green & Co 1909 7/6

p. 309 Telegraphic Transmission of pictures, & T. Thorne - Baker

1910 Mar - 14 — Monday — at Houseboat

Mar. 14: About dusk on Friday (Mar. 11) attempted a flight in aerodrome Boddach No. 2. - We had put on a smaller propeller with a diameter of 7'-4" instead of the 7'-8" one we had been using. This permitted the engine to turn over faster giving us more horsepower - Started in usual place & left the ice about off Carruth's wharf. - There was quite a puff of wind from the N.W. by N. & when I tried to make the turn to port I thought

1910 Mar. 14 — Monday — at 12:15

the breeze too strong & so effected a landing on the clamper ice about half way across the bay. The one idea in my mind was to keep going on account of the unsafe condition of the ice & as I could not turn & run back in ^{to} the good ice because a skid would wreck the whels I headed straight for the shore at the stable. During this run a tire exploded & the unprotected wheel was smashed on the rough ice — stopped just by the stable & the men skated up bringing a new wheel which was put in place. The machine was then wheeled home & housed for the night — J.M.D.

In the following morning (Mar 12th) got down with sled about six o'clock when some of the men had already arrived. We ran the engine a few times & then started off for a trial flight. Had instructed John Mc Dermid to

1910 Mar 14

Monday

at 1545

169

Telephone the Point when he saw the machine flying - which he did - Casey, Major Mammell & Mulford arrived at the finish of the second flight - The engine gave us trouble - We thought it might be mixture trouble & so disconnected the radiator & attached a barrel of water to cool while we saw water at shed.

She ran OK, giving no trouble at all so we attempted another flight - Water stopped again & I thought the trouble lay in the fact that the overflow water from the radiator got on the magnets & short circuited. We covered up the magnets but did not thoroughly dry it off - Water stopped on next trial -

All the flight made was good & no damage sustained. Lt. Gov. Tracer witnessed the flight & appeared much pleased.

J. A. M. C.

1910 Mar. '4

Monday

at B.S.

Mar 14:

On further consideration of the feasibility of employing dihedral wing tips to preserve lateral balance I became more and more convinced that they will prove practical and that the disadvantages are slighter than they appeared at first glance. The chief of the latter is the tendency to side drift due to side winds but I believe that the tipping tendency will be very slight, especially if the dihedral angle is made as great as 60° . It may even prove advisable to make these tips vertical. I do not think however that this latter is necessary. It would also seem on further study, that the lifting action of these wing tips will be greater than those of a similar area placed behind the wings with variable angles of incidence. Side gusts of wind will also have a tendency to elevate the tip on the side they strike thereby decreasing its lifting power and at the same time depress the tip on the opposite side thereby increasing its power. It is questionable whether the variations will affect the head resistance thereby causing a tendency to turn about the vertical axis. In view of these facts and the advisability of having some distinguishing feature to a machine I hope to try the experiment as soon as possible.

C.G. K.

1910 Mar 14

Monday

at Bell 171

Halifax Chronicle
Mar. 14 1910

THRILLING FLIGHTS BY AVIATOR McCURDY IN HIS AERODROME

Lieut.-Governor Fraser Was Among
Those Who Witnessed the Experi-
ments at Baddeck, on Saturday--
The Aviator Ascended To a
Height of 125 Feet, And
Then Made a Graceful
Landing

SPECIAL TO THE MORNING CHRONICLE.

BADDECK, N. S., March 12—
Droming at Baddeck is in daily prac-
tice and is drawing visitors from far
and near to the scene of activities.
Lieut. Governor Fraser of Nova
Scotia and son, Hon. W. F. McCurdy
and other distinguished visitors ar-
rived at Baddeck on Friday evening
and were early on the ice field to
witness some magnificent flights by
J. A. D. McCurdy, the young Cana-
dian hero of aviation.

Mr. McCurdy in a series of flights
demonstrated to the large gathering
of spectators flights of from five to
one hundred and twenty-five feet in
height and the spectators were jubil-
ant over the graceful landings made
in every flight. Lieut. Governor
Fraser was very enthusiastic over
the flights, this being the first flight
of a heavier-than-air machine he had
witnessed.

Major Maunsell who was to leave
here on Friday last was so infatu-
ated with the daily flights that he
stayed over until this afternoon and
was also very enthusiastic over the

flights of today. Major Maunsell left
by the steamer Blue Hill this after-
noon for Sydney and will leave Syd-
ney on Monday morning for Otta-
wa. It is presumed much will depend
on his report whether the Canadian
Government will invest first in
Dreadnoughts or airships. It is to
be hoped the latter.

A thrilling little incident occurred
during the day's proceedings, William
F. Bedwin was trying out Dr. Bell's
Oionos No. 1, testing the steering
qualities of the machine not for
flight. Mr. McCurdy had just made a
landing with Baddeck No. 2, seeing
the Oionos running full speed, fully
a mile in advance of where he landed,
Mr. McCurdy turned on the power of
his motor and set out in pursuit. To
the onlookers behind it looked as if
a collision was inevitable, but Mr.
McCurdy soon put all beyond doubt
and demonstrated, if confined to
space on the surface, he had the
wings of a bird and took to the air
where he had unlimited space.

see original C.O.P.
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1910 Mar 14

Monday

at 15th.

Halifax Herald

Mar 14 1910

Governor Fraser Sees the Flights

**His Honor Much Pleased
With the Work of
Aerodrome Bad-
deck No. 2.**

BADDECK, March 12.—“Invaluable for Canada to have on hand in time of war.” This was the expression of Governor D. C. Fraser, who was in Baddeck to-day, accompanied by his son Allister, the guest of Alexander Graham Bell, to witness the flights of aerodrome, Baddeck No. 2, from Dr. Bell's aerial navigation laboratory. With the governor also was Major Maunsell, of the Canadian militia department, who stayed over to witness another day's flights.

Governor Fraser was on the flying ground at seven o'clock in the morning in time for the first flight of the day. McCurdy flew up and down, around and around the bay, covering in the eight flights in all about 18 or 19 miles, keeping at a height of from 50 to 100 feet. Citizens of Baddeck and farmers from around the country on foot and in teams, flocked to the scene. In one instance, Mr. McCurdy, in his drome, flew close over a man who was hauling a load of hay across the ice. The governor was much excited over the flights and Major Maunsell watched the performance with intense interest. Speaking particularly of the ease with which the aviator brought down the machine, Governor Fraser was very much impressed. “Why,” said his honor, “just think of the different uses these machines could be put to if the Canadian government owned them. Not only would they be imperative in time of war, but they could be used for the purpose of exploration in the north.”

✓ See original C.A.C.